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May 1, 2006

216460

BY HAND

The Honorable Vernon A. Williams
Secretary
Surface Transportation Board
Case Control Unit
1925 K Street, N.W.
Washington, D.C. 20423-0001

Re: STB Ex Parte No. 657 (Sub-No. 1), *Major Issues In Rail Rate Cases*; Docket No. 41191, *West Texas Utilities Company v. BNSF Railway Company*; Docket No. 41191 (Sub-No.1), *AEP Texas North Company v. BNSF Railway Company*

Dear Secretary Williams:

Enclosed please find an original and ten (10) copies of the Opening Comments of AEP Texas North Company in the above-referenced proceeding. Also enclosed are three CDs containing the filing.

Finally, we have enclosed an additional copy of these Comments to be date-stamped and returned to the bearer of this letter. Thank you for your attention to this matter.

Respectfully submitted,

Kendra A. Ericson

Enclosures

cc: Service List-w/enclosures (hardcopy only)

**BEFORE THE
SURFACE TRANSPORTATION BOARD**



MAJOR ISSUES IN RAIL RATE CASES

216460
Ex Parte No. 657 (Sub-No. 1)

WEST TEXAS UTILITIES COMPANY
Complainant,

v.

Docket No. 41191

BNSF RAILWAY COMPANY
Defendant.

AEP TEXAS NORTH COMPANY
Complainant,

v.

Docket No. 41191 (Sub-No. 1)

BNSF RAILWAY COMPANY
Defendant.

OPENING COMMENTS OF AEP TEXAS NORTH COMPANY

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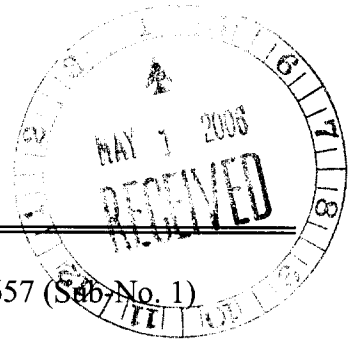
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Dated: May 1, 2006

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**BEFORE THE
SURFACE TRANSPORTATION BOARD**



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	)	
WEST TEXAS UTILITIES COMPANY	)	
Complainant,	)	
	)	
v.	)	Docket No. 41191
	)	
BNSF RAILWAY COMPANY	)	
Defendant.	)	
	)	
AEP TEXAS NORTH COMPANY	)	
Complainant,	)	
	)	
v.	)	Docket No. 41191 (Sub-No. 1)
	)	
BNSF RAILWAY COMPANY	)	
Defendant.	)	
	)	

OPENING COMMENTS OF AEP TEXAS NORTH COMPANY

By Decision served February 27, 2006 (“*Decision*”), the Board invited interested parties to submit comments on six issues that have been raised in recent cases arising under the stand-alone cost (“SAC”) constraint of the *Coal Rate Guidelines*.¹ These issues are: (1) the methodology for allocating rate relief, (2) the division of revenues on “cross-over traffic,” (3) the indexing of operating expenses, (4) movement specific adjustments to variable costs under the Board’s Uniform Railroad Costing

¹ *Coal Rate Guidelines, Nationwide*, 1 I.C.C. 2d 520 (1985).

System (“URCS”), (5) the SAC analysis period, and (6) the standards for reopening and vacating prior rate prescriptions. AEP Texas North Company (“AEP Texas”) hereby submits these Comments in response to that invitation.²

BACKGROUND

The Board initiated *Ex Parte No. 657* in February 2005, in order to allow the expression of views by rail shippers, railroads, and other interested persons on issues related to Board consideration of rail rate challenges under the SAC methodology. On April 20, 2005, American Electric Power Service Corporation, the parent company of AEP Texas, filed comments in that docket as a member of the Concerned Captive Coal Shippers. In their April 20, 2005 comments, the Concerned Captive Coal Shippers encouraged the Board to use a case-by-case approach (as opposed to a formal rulemaking) to solve perceived problems with its SAC analysis as applied in recent coal rate cases. *Comments* at 31. The Concerned Captive Coal Shippers expressed the importance of “broad flexibility to develop and present the SARR traffic group, operating plan, physical plant, etc. that they believe will offer the least cost SARR option,” (*id.* at 34), and pointed out that a resolution that makes sense for one shipper in a given SAC case may not make the most sense for all SAC cases when the facts and circumstances are considered. *Id.* They also expressed concern that a rulemaking would result in administrative delay, and

² AEP Texas is successor-in-interest to West Texas Utilities Company. These Comments are submitted in and encompass both *Docket No. 41191* and *Docket No. 41191 (Sub-No. 1)*.

noted that such a rulemaking will “hinder the progress of SAC cases currently pending before the Board.” *Id.* These concerns were echoed by every shipper and shippers group that filed comments in the proceeding.

Over the objections of the shipper community, the Board’s *Decision* initiated a rulemaking to address the issues noted above. The Board also directed the reopening of *Docket No. 41191*, *Docket 41191 (Sub-No. 1)*, and another pending coal rate proceeding, all of which had been fully briefed on completed records, and were awaiting decision by the Board.

In response to the *Decision*, the Concerned Captive Coal Shippers, Western Coal Traffic League, Western Fuels Association, Inc., Edison Electric Institute, National Rural Electric Cooperative Association and American Public Power Association (collectively “Coal Shippers”) this date are filing Joint Comments on the Board’s proposals. AEP Texas subscribes to the Joint Comments. It submits these additional Comments specifically to address issues relevant to its pending rate reasonableness cases.

Docket No. 41191 (Sub-No. 1) was initiated on August 11, 2003. The last round of evidence was filed on February 28, 2005,³ and the case was briefed on June 9, 2005. In accordance with Section 10704(c)(1), a final decision was due no later than

³ The parties submitted their rebuttal evidence on July 27, 2004. AEP Texas subsequently filed supplemental evidence on November 8, 2004 to update its Rail Traffic Controller simulation. In a decision dated January 14, 2005, the Board requested that BNSF reply to the supplemental evidence by February 14, 2005. AEP Texas replied to BNSF’s February 14 filing on February 28.

March 9, 2006. However, the *Decision* opening this proceeding was served eleven days earlier, and the record in *Docket No. 41191 (Sub-No. 1)* was reopened. The Board noted that it intended to apply much of the outcome of the rulemaking to pending cases, and specifically requested comments from the parties involved on “whether or to what extent it would be inequitable to apply the changes proposed herein, or parts thereof, to [those] pending cases.” *Decision* at 2.

Finally, on March 17, 2006, the Board served a separate order in *Docket No. 41191 (Sub-No. 1)* directing three rounds of additional evidence on a limited set of specific matters at issue in the case (“*Compliance Order*”). The last round of this supplemental evidence is due on July 14, 2006.

SUMMARY OF COMMENTS

With respect to four of the proposals offered by the Board in its *Decision*, AEP Texas submits that alternatives should be adopted or no change should be made. Specifically, the Board should endorse the methodology for allocating rate relief proposed by AEP Texas in *Docket No. 41191 (Sub-No. 1)*; continue to use the MSP methodology for allocating revenue divisions on cross-over traffic; and adopt the Coal Shippers’ proposed methodology for indexing stand-alone operating expenses, and their proposed standards and procedures for evaluating requests to reopen or vacate rate prescriptions.

AEP Texas submits that application of its proposed solutions on the issues of allocating rate relief, the division of revenue on cross-over traffic, the indexing of

operating expenses, and the vacation of rate prescriptions justly and equitably can be applied in *Docket No. 41191 (Sub-No. 1)* and *Docket No. 41191*, as such changes can be implemented without additional evidence or discovery. However, the application of any new rule that would require new or additional evidence or discovery would be manifestly unjust, inequitable and contrary to law.

AEP Texas also submits that the application in *Docket No. 41191 (Sub-No. 1)* of the proposed rules regarding movement specific variable cost adjustments and changes to the 20 year DCF period would be unfair, inappropriate and unduly burdensome, and should not be undertaken.

COMMENTS

I. IT WOULD BE MANIFESTLY UNJUST TO REQUIRE OR PERMIT THE SUBMISSION OF NEW EVIDENCE BEYOND THE SCHEDULED COMPLIANCE FILINGS

In its *Decision*, the Board asks whether it would be inequitable to apply any changes in rules or methodology that might be adopted in this proceeding to *Docket No. 41191 (Sub-No. 1)*. *Id.* at 2. The Board also indicates that once this proceeding is concluded, AEP Texas and BNSF would be afforded “an opportunity to submit supplemental evidence that comports with whatever changes we decide to adopt....” *Id.* at 3. AEP Texas submits that it would be manifestly inequitable if the Board *did* allow the filing of any additional evidence at the close of this proceeding, and strongly objects to

any delay in the conclusion of this case beyond that which already is inevitable as a consequence of the Board's *Compliance Order*.

Once an evidentiary record is complete, the Board is required by statute to issue a final decision within nine months. 49 U.S.C. § 10704(c)(1). Prior to the issuance of the *Decision*, a final ruling in *Docket No. 41191 (Sub-No. 1)* was due on March 9, 2006. The Board's *Compliance Order* calls for a limited submission of supplemental evidence, which will conclude on July 14, 2006. Whether the Board adopts the reforms advocated herein by AEP Texas, the proposals set out in the *Decision*, or some combination of the two, no additional evidence would be needed in order to calculate variable and stand-alone costs and render a final rate reasonableness determination.⁴ Under these circumstances, requiring or permitting additional evidence would be manifestly unjust and inequitable.

The complaint in this case was filed on August 11, 2003, over 2 years and 8 months ago. Since that time, AEP Texas has dedicated extraordinary efforts and resources to the prosecution of its case, concluding in a voluminous record addressing in minute detail every element and sub-element of the Board's maximum rate

⁴ All of the changes proposed by the Board, as well as the alternatives advocated by AEP Texas, are methodological, and do not rely on evidence that is not already on record (or will be in light of the *Compliance Order*) for their execution. The only proposal advanced by the Board that would have evidentiary implications concerns shortening the DCF period from 20 to 10 years. However, the Board already has expressed its intent not to apply this change (if it is adopted) to *Docket No. 41191 (Sub-No. 1) (Decision, at 2)*, and AEP Texas agrees.

methodologies. AEP Texas now is committed to additional, limited rounds of supplemental evidence, which of course will demand additional effort and resources. To require yet another filing after the rulemaking in this case would be unjust and inequitable in the extreme, particularly since any changes in methodology can be applied to the existing record, solely as supplemented in response to the *Compliance Order*.

The submission of additional evidence and sufferance of further delay in this proceeding also would be contrary to law. The District of Columbia Circuit has held that a rulemaking should not delay a decision in an adjudication that is subject to a statutory deadline. *See AT&T v. UCC*, 978 F.2d 727, 732 (D.C. Cir. 1992). That holding makes clear that a rulemaking should be conducted parallel to a related adjudication, and cannot be used to alter that adjudication's statutory deadline.

AEP Texas therefore submits that the Board should not allow additional evidence (other than the mechanical application of the approved methodologies to the current record) or discovery in either *Docket No. 41191* or *Docket No. 41191 (Sub-No. 1)* after the Board concludes this proceeding.

II. METHODOLOGY FOR ALLOCATING RATE RELIEF

In prior SAC cases, the Board has used the percent reduction method to allocate total SAC relief. *Decision* at 7. In its evidentiary submissions in *Docket No. 41191 (Sub-No. 1)*, AEP Texas explained in detail the flaws in this approach, and the

reasons why it should be replaced by the General Percent Reduction Methodology (“GPRM”) proposed therein. AEP Texas Opening at III-G-25 to 32; AEP Texas Rebuttal at III-G-35 to 40.⁵ In its *Decision*, the Board acknowledged the defects in the percent reduction formula, and invited parties to pending cases to propose alternatives. *Decision* at 7-9. AEP Texas is hereby submitting GPRM to be adopted in this rulemaking as an acceptable approach to the allocation of rate relief.

A. The Board’s Alternative Approaches

In its *Decision*, the Board proposed two methodologies to replace the percent reduction method – the Maximum Contribution Methodology (“MCM”) and the Maximum Markup Methodology (“MMM”). As discussed in the Joint Comments, each of these is superior to the percent reduction formula. However, neither should be endorsed as the exclusive acceptable methodology, and GPRM should be adopted for use in *Docket No. 41191 (Sub-No. 1)*.

1. Maximum Contribution Methodology

Under MCM, the total SAC costs would be apportioned among the traffic group based on ton-miles. The Board then would check to see if the share of costs assigned to a movement would exceed its current rate level. If a non-issue movement’s share of SAC costs is higher than the rate actually charged by the incumbent, MCM

⁵ All references to the record of *Docket No. 41191 (Sub-No. 1)* in this proceeding refer to the public version of the filings.

would reapportion the difference to the remaining traffic, thereby increasing the contribution from the remaining traffic. The analysis would be repeated until no movement is assigned a higher share of SAC costs than the incumbent levies on that movement.

As discussed in the Joint Comments, MCM is an improvement over the percent reduction method, but it still has a number of flaws. The starting point for the maximum rate is still the rate set by the defendant, which does not completely mitigate the effects of gaming. In contrast, GPRM solves this problem by ensuring that higher rate increases yield equally significant rate reductions by making marginal costs, not the original rate, the starting point for the new rates. Further, under MCM the barometer of demand elasticity remains absolute price, as opposed to the mark-up of price over marginal costs. As discussed below, GPRM focuses on the mark-up over marginal costs. GPRM, therefore, will yield results that are closer to those that one would expect under true application of Ramsey principles. Another problem with MCM is that it does not take into account the differences in variable costs among the members of the shipper group, which makes MCM ill-suited for cases in which the traffic group contains a mix of commodities, train types and long-haul and short-haul traffic. GPRM is suitable for all traffic groups, as it takes into account the marginal costs for each movement.

2. Maximum Markup Methodology

In instances in which the traffic group is diverse, the Board suggests using the MMM approach. MMM uses URCS to estimate the variable cost of every movement in the traffic group, and allocates relief based upon revenue markups over variable cost as compared to the system's average markup over SAC. *Decision* at 13-16.

MMM is more difficult to apply, though it does have the virtue of producing results that focus on markups, rather than prices. However, MMM uses variable costs rather than marginal costs in its determination. GPRM's use of marginal costs is a truer representation of Ramsey pricing principles.

B. The Generalized Percent Reduction Method

In response to the problems associated with the percent reduction methodology, AEP Texas presented GPRM as an alternative. AEP Texas Opening at III-G-30 to 33; AEP Texas Rebuttal at III-G-43 to 48; AEP Texas Brief at 19 to 22. The theoretical soundness of GPRM was verified by AEP Texas witnesses Drs. Douglas Caves, Kelly Eakin and Mark Meitzen. As requested by the Board in its *Decision*, AEP Texas hereby re-submits this method for consideration in this rulemaking.

1. The General Rule

GPRM is a generalization of the percent reduction method currently employed by the Board, which modifies the Board's methodology to be consistent with Ramsey pricing principles. GPRM allocates rate relief based on the maintenance of the

ratios of price markups over marginal cost. The GPRM rule is based upon the following equation:

$$\% \text{ price decrease shipper } i / \% \text{ price decrease shipper } j = (P_i / P_j) (MC_j / MC_i) E_{ji}$$

where P_i and P_j are the original Ramsey prices, MC_j and MC_i are shipper-specific marginal costs, and E_{ji} is the ratio of shipper j 's elasticity of demand to shipper i 's elasticity of demand. See AEP Texas Opening at III-G-30. Exhibit III-G-11 (attached hereto as Exhibit A) to AEP Texas' Opening Evidence presents the derivation of GPRM and provides an example of its practical implementation.

Under GPRM, the total reduction in rates is approximately equal to the overall percentage by which SARR revenues exceed SAC. Unlike the percent reduction method, however, GPRM requires that the individual reductions vary from shipper to shipper in a manner in which the most inelastic shippers receive the greatest percent reduction. This feature conforms to Ramsey pricing principles, as these are the same shippers that are expected to absorb the highest markups when revenues are inadequate to fully cover costs. AEP Texas Opening at III-G-31 to 32.

2. Computation of Marginal Costs

As a practical matter, coal rate proceedings do not readily permit the specific calculation of marginal service costs for each member of the SARR traffic group. Such a showing would be extremely burdensome. This limitation should not affect the use of GPRM, however, as there is no need to compute the actual marginal costs of a

particular movement with specificity. Instead, the goal is to measure the markup of the rate over a determined cost level *relative* to the comparable markups above similarly determined cost levels on other rates in the traffic group. As long as the rates are measured against a consistent cost standard, the relative markups can be determined in order to allocate the excess SARR revenues over SAC. AEP Texas Rebuttal at III-G-46 to 47. The average marginal costs for a movement can be determined using publicly available Phase III URCS data for the defendant railroad in the base year of the SAC analysis. AEP Texas Opening at III-G-32 to 33. The SARR revenue per ton attributable to each member of the traffic group then can be compared to the appropriate marginal cost figure, based upon distance, to arrive at the relative markups. *Id.* at 32 to 33.

The calculation of system average marginal costs in this manner has come under attack as not determining shipper-specific marginal costs with certainty. BNSF Reply at III-G-36 to 40. However, the Board and ICC each have recognized that complex precision must be tempered with practicality when determining a workable regulatory formula. *Public Service Company of Colorado d/b/a/ Xcel Energy v. The Burlington N. and Sante Fe Rwy. Co.*, STB Docket No. 42057, slip op. at 16 (STB Served June 7, 2004) (“PSCo”); *Coal Rate Guidelines*, 1 I.C.C. 2d at 544. The marginal cost calculations in this instance are used to estimate the percentage markup for each movement. The estimated markups are used to infer the relative demand elasticities. The use of system average costs is sufficient for such a purpose. AEP Texas Rebuttal at III-G-46 to 47.

An example of the calculation of the resulting percent markups for each movement can be seen in Exhibit III-H-1 of AEP Texas' Opening Evidence, attached hereto as Exhibit B.

3. Allocation of Excess Revenues

The goal of GPRM is to allocate excess revenues over SAC in a manner which simultaneously provides reductions to all shippers in a group whose contributions exceed marginal costs, and closely maintains the relative relationship of each shipper's respective demand elasticity to every other shipper's.

It is possible that some shippers in the traffic group will have rates below marginal costs. If a shipper's rate is below marginal cost, a reduction would be improper as it would push that shipper's price away from optimum efficiency. Such a shipper's rate should not be increased either, however, as the *Coal Rate Guidelines* do not contemplate increasing rates on non-issue traffic. Therefore, under GPRM, a rate that is already at or below marginal cost will remain unchanged. AEP Texas Brief at 21 n.69.

For shippers whose rates are above marginal costs, GPRM allocates the excess revenues. First, each movement's revenue contribution in excess of marginal costs is determined as follows:

$$(1) \quad M_i = (P_i - MC_i) Q_i, \text{ where}$$

M_i = aggregate contribution over marginal cost

P_i = original rate per ton

MC_i = marginal cost

Q_i = movement volume

Once these contributions over marginal costs are totaled ($M = \sum M_i$), each movement's decimal share of the total (S_i) can be calculated:

$$(2) \quad S_i = M_i / M$$

Next, the excess revenue over SAC is allocated, which determines the measure of relief (d_i) assigned to each member of the group:

$$(3) \quad d_i = S_i D, \text{ where}$$

D = the total excess revenue over SAC.

This allows each member's adjusted contribution over marginal cost (such that total revenues equal SAC) to be determined ($M_i - d_i$), which is converted to a per ton basis:

$$(4) \quad (M_i - d_i) / Q_i$$

Adding back the original marginal cost yields the new rate for each movement:

$$(5) \quad [(M_i - d_i) / Q_i] + MC_i$$

AEP Texas Brief at 21 to 22.

An example of the application of this methodology is shown in Counsel's Exhibit No. 1 to the Brief of AEP Texas, attached hereto as Exhibit C.

C. The GPRM is Consistent with Ramsey Pricing Principles

Under GPRM, relief is allocated in the same manner as prices initially were presumed to have been set or increased, that is, shippers with the least elasticity experience a greater percentage change in pricing (whether prices are increasing or decreasing). Such an approach is consistent with Ramsey principles, because GPRM ensures that shippers whose demand elasticities exposed them to the greatest price markups over marginal costs when overall carrier revenues were raised experience correspondingly greater price reductions when the SAC test points to a reduction in the overall SARR revenues. AEP Texas Opening at III-G-30 to 31; AEP Texas Rebuttal at III-G-37; AEP Texas Brief at 22.

GPRM also eliminates the risk of gaming. Under GPRM, as rate markups increase so does the amount of rate relief offered, thereby offsetting the effects of any attempt by a carrier to dramatically increase prices before a rate case begins. The reduction would be based on the markup over marginal costs. GPRM resolves the gaming issue by ensuring that the end result is not based on the initial price set by the railroad. AEP Texas Opening at III-G-31.

In addition to consistency with Ramsey principles and prevention of gaming, there are other reasons to use GPRM in SAC cases. First, the allocation under GPRM is efficient and fair. By allocating relatively greater rate relief to movements with less elastic demand, the greatest amount of total consumer surplus is recaptured. As the

inelastic demand traffic shoulders the burden of the largest markups in prices in order to address revenue inadequacies, it is entitled the largest relief in instances of excess revenues. GPRM accomplishes this by providing parallel treatment in situations of revenue inadequacy and excess SARR revenue over SAC. AEP Texas Rebuttal at III-G-43 to 44.

GPRM also obtains the most accurate results without additional burden. GPRM follows Ramsey pricing principles closely, but eliminates much of the complexity associated with pure Ramsey pricing. This allows the Board to prescribe rates that are based on the demand elasticity of shippers, without utilizing a method that would be too costly and complex to administer. GPRM does not require additional discovery, or a significant change in the burden of presenting or reviewing evidence, and yields results superior to those obtained under percent reduction. Such an approach is consistent the ICC's original intent in the *Coal Rate Guidelines*. 1 I.C.C.2d at 527.

III. REVENUE ALLOCATION FOR CROSS-OVER TRAFFIC

In calculating the division of revenues on cross-over traffic in its SAC evidence, AEP Texas relied upon the MSP methodology used by the Board in the past five coal rate reasonableness cases.⁶ For the reasons explained in detail in the Joint

⁶ *Otter Tail Power Company v. BNSF Rwy. Co.*, STB Docket No. 42071, slip op. at 19 (STB Served Jan. 27, 2006); *PSCo* at 17-19; *Duke Energy Corp. v. CSX*

(continued...)

Comments of the Coal Shippers, the Board should continue to apply the MSP methodology in *Docket No. 41191 (Sub-No.1)*.

IV. INDEXING OPERATING EXPENSES

The indexing of stand-alone operating expenses has been a controversial matter in most recent SAC cases. In general, the parties have debated whether a SARR, as an optimally efficient carrier, could expect to realize productivity gains in the future that would offset or moderate the effects of price inflation on the SARR's operating costs. *Decision* at 20. In the *Decision*, the Board once again acknowledged that a SARR can be expected to experience productivity gains over its life, and proposed a 20-year phase-in from the RCAF-U to the RCAF-A. *Decision* at 21.

In *Docket No. 41191 (Sub-No. 1)*, AEP Texas proposed an indexing methodology that relied upon the same measure of expected future rail productivity incorporated in the EIA's forecast of coal transportation revenue growth – the index used by the Board to adjust future SARR revenues. See AEP Texas Opening at III-G-9 to 14; AEP Texas Rebuttal at III-G-6 to 13; AEP Texas Brief at 17 to 19.

⁶(...continued)

Transportation, Inc., STB Docket No. 42070, slip op. at 20-22 (STB Served Feb. 3, 2004); *Carolina Power & Light Co. v. Norfolk Southern Rwy.*, STB Docket No. 42072, slip op. at 20-21 (STB Served Dec. 22, 2003) (“CP&L”); *Duke Energy Corp. v. Norfolk Southern Rwy.*, STB Docket No. 42069, slip op. at 20-25 (STB Served Nov. 5, 2003).

In the Joint Comments, the Coal Shippers explain why the Board's suggested formula is inadequate to capture SARR productivity gains, and have proposed an alternative mechanism that is RCAF-based and, therefore, easier to apply than the methodology proposed by AEP Texas in *Docket No. 41191 (Sub-No. 1)*. Because the Coal Shippers' approach is easier to apply and yields equally reliable results, AEP Texas supports its adoption and application in *Docket No. 41191 (Sub-No. 1)*.

V. MOVEMENT-SPECIFIC ADJUSTMENTS TO URCS

The Board's jurisdiction only extends over rates set by a carrier found to possess market dominance over the traffic involved. As part of this test, if a carrier shows that the revenues received for transporting the movements at issue are less than 180% of the variable cost of providing that service, then the carrier is presumed not to have market dominance. Thus, in the event that the Board finds a rate to be unreasonable, it may not prescribe a rate below this 180% threshold. The basic formula for the determination of variable costs is the URCS general costing system. However, the Board has long recognized the legitimacy of movement-specific adjustments to URCS system average costs to reflect the acknowledged efficiencies of unit train coal service.⁷

⁷ *Texas Municipal Power Agency v. The Burlington Northern and Santa Fe Ry.*, STB Docket No. 42056, slip op. at 10, 41 (STB served March 24, 2003); *CP&L* at 114; *Wisconsin Power and Light Co. v. Union Pacific R.R.*, STB Docket No. 42051, slip op. at 38-39 (STB served Sept. 13, 2001); *FMC Wyoming Corp. v. Union Pacific R.R.*, STB (continued...)

Notwithstanding this history, the Board in the *Decision* proposed to eliminate the use of movement-specific adjustments in the calculation of variable costs.

AEP Texas incorporates the Joint Comments of the Coal Shippers with respect to the continued recognition of movement-specific adjustments to system average costs. AEP Texas also submits that it would be wholly inappropriate to apply any change in variable cost methodology to the record in *Docket No. 41191 (Sub-No. 1)*. Because the variable cost portion of the evidence in AEP Texas' case is completed, no changes to the development or presentation burden can be claimed, and there is no legitimate basis on which to dismiss or ignore it. Irrespective of the outcome of this proceeding, the Board should calculate variable costs in *Docket No. 41191 (Sub-No. 1)* on the basis of the existing record.

VI. STAND ALONE COST ANALYSIS PERIOD

In SAC cases, the Board analyzes the revenue requirements of the SARR and the revenues generated by the traffic group over a twenty year period. This same discounted cash-flow period also sets the potential temporal limit of a rate prescription.

Decision at 29.

⁷(...continued)

Docket No. 42022, slip op. at 48 (STB served May 12, 2000); *West Texas Utilities Co. v. Burlington Northern R.R.*, 1 S.T.B. 638, 717 (1996); *San Antonio, Texas, Acting By and Through its City Public Service Board v. Burlington Northern R.R.*, 1 I.C.C.2d 561, 569 (1986).

In the *Decision*, the Board proposed to shorten the analysis period to 10 years. However, the Board also indicated that absent compelling circumstances, it would not apply this change in *Docket No. 41191 (Sub-No. 1)*. The Board reasoned that:

the record has been developed based on a SARR designed to handle peak demand in a 20-year analysis period. Shortening the analysis period could require the submission of an essentially new SAC case.

Decision at 2. AEP Texas agrees that the Board should not shorten the SAC analysis period in *Docket No. 41191 (Sub-No. 1)*, as such a change would entail significant expense due to the additional cost of analyzing the costs, rates and revenues over a different time period, and the re-submission of substantial portions of the evidence in this case. AEP Texas asks that the Board confirm its decision to utilize the 20-year SAC analysis period in *Docket No. 41191 (Sub-No. 1)*.

VII. STANDARDS FOR REOPENING OR VACATING RATE PRESCRIPTION

The Board's final proposal relates to the standards and procedures to be applied in evaluating petitions for the reopening or vacation of pre-existing rate prescriptions. *Decision* at 31-38. These issues are squarely presented in the pleadings now pending in *Docket No. 41191*. AEP Texas incorporates the positions of the Coal Shippers regarding these questions, and urges adoption of those standards by the Board.

CONCLUSION

AEP Texas submits that the Board should resolve the issues raised in its *Decision* in the manner described herein, and in the Joint Comments of the Coal Shippers.

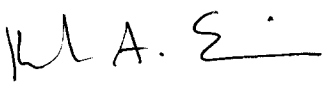
Respectfully submitted,

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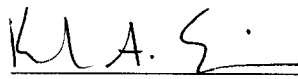
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Dated: May 1, 2006

Attorneys & Practitioners

CERTIFICATE OF SERVICE

I hereby certify that on this 1st day of May, 2006, I caused a copy of the foregoing Opening Comments of AEP Texas North Company and accompanying cover letter to be served upon all parties on the service lists in these proceedings.



Kendra A. Ericson

Exhibit A

Ramsey Pricing Principles and the Generalized Percentage Reduction Method

1. The Theoretical Basis for Ramsey Pricing

The objective of Ramsey pricing is to maximize economic value while allowing the supplier just to recover costs. Alternatively, this can be viewed as recovering fixed costs by raising prices differentially above marginal cost in a manner than minimizes economic inefficiency or deadweight loss.

The constrained optimization, also called a "second-best" problem,¹ is

$$\begin{aligned} \text{Maximize}_{P_i, \lambda} \quad & \sum_i \int -Q_i(P_i) dP_i + \sum P_i Q_i(P_i) - C(Q_1(P_1), Q_2(P_2), \dots, Q_n(P_n)) \\ & + \lambda [\sum P_i Q_i(P_i) - C(Q_1(P_1), Q_2(P_2), \dots, Q_n(P_n)) - F] \end{aligned} \quad (1)$$

where Q_i s are outputs, P_i s are prices, C is variable cost, F is fixed cost and λ is the LaGrange multiplier on the breakeven constraint.

The first-order conditions to the Ramsey pricing problem are

$$-Q_i + (Q_i + P_i \partial Q_i / \partial P_i) - MC_i \partial Q_i / \partial P_i + \lambda [(Q_i + P_i \partial Q_i / \partial P_i) - MC_i \partial Q_i / \partial P_i] = 0 \quad (2a)$$

$$\sum P_i Q_i(P_i) - C(Q_1(P_1), Q_2(P_2), \dots, Q_n(P_n)) - F = 0 \quad (2b)$$

where MC_i is the marginal cost in the i th market.

The first term in equation (2a), $-Q_i$, indicates the marginal loss of consumer surplus as price in the i th market is increased. The second term, $(Q_i + P_i \partial Q_i / \partial P_i)$, is the marginal revenue to the supplier resulting from increasing the i th price. $-MC_i \partial Q_i / \partial P_i$ is

¹ Marginal cost pricing, also called "first-best" pricing, maximizes the economic value in allocating resources, but may result in economic losses for the supplier.

the marginal decrease in cost to the supplier as the i th price is increased. Finally, the last term in equation (2a) indicates how the breakeven constraint, equation (2b), changes as the i th price is increased.

2. The Generalized Percentage Reduction Rule

Using the definition of the price elasticity of demand, Equation (2a) can be manipulated to give

$$[(P_i - MC_i)/P_i] = [\lambda/(1+\lambda)] (-1/\varepsilon_i) \quad (3)$$

where ε_i is the price elasticity of demand in the i th market. This result shows that the optimal markup of price over marginal cost is inversely proportional to the price elasticity of demand in the market.

Combining the first-order conditions given by equation (3), yields

$$[(P_i - MC_i)/P_i] / [(P_j - MC_j)/P_j] = E_{ji} \quad (4)$$

where E_{ji} is the relative elasticity of demand given by $\varepsilon_j/\varepsilon_i$. This result shows that Ramsey pricing implies that the *ratios of price markups* are determined by the relative elasticities.

Equation (4) can be rearranged to give

$$1 - MC_i/P_i = (1 - MC_j/P_j) E_{ji} \quad (5)$$

Treating MC_i , MC_j and E_{ji} as constants and differentiating equation (5) gives

$$(MC_i/P_i^2)dP_i = (MC_j/P_j^2) E_{ji} dP_j \quad (6)$$

which can be reorganized as

$$(dP_i/P_i) / (dP_j/P_j) = (P_i/P_j) (MC_j/MC_i) E_{ji} \quad (7)$$

Equation (7) is the generalization of the percentage reduction rule that remains consistent with Ramsey pricing. The left-hand side of the equation is the percentage change in the price in market i divided by the percentage change in the price in market j .

The current equal percentage reduction rule is a special case of the generalized percentage reduction rule (i.e., the left-hand side of equation (7) is 1). An equal percentage reduction is only appropriate when the relative elasticity of demand is 1. However, this is the degenerative case where differentiated pricing, as called for by Ramsey principles, produces no efficiency gains relative to an equal percentage reduction rule.²

3. Relative Percentage Reductions and Absolute Percentage Reductions

The generalized percentage reduction rule solves the problem of the relative percentages by which to reduce prices. However, as with the current equal percentage reduction rule, the question of the absolute level of individual price reductions remains unanswered. At a minimum, rates need to be reduced on average by the percent of excess revenue collection.³ In arriving at the overall required average reduction, individual price reductions are determined based on relative elasticities of demand.

² Differentiated pricing means different price to marginal cost ratios in different markets. As seen in equation (3), Ramsey pricing improves efficiency, or more accurately minimizes pricing inefficiency, by differentiated pricing according to an inverse elasticity rule. However, if the demand elasticities are the same, then no efficiency gain can be obtained by differentiated pricing.

³ This conclusion is based upon the assumption of constant or decreasing marginal costs.

4. Simple Example of the Generalized Percentage Reduction Method

We use a simple three-shipper example to illustrate the generalized percentage reduction method for a SARR.

Demand and Cost Structures

The demands for rail services by the shippers are given by the following constant elasticity of demand equations:

$$D1: \quad Q_1 = 100 P_1^{-0.5}$$

$$D2: \quad Q_2 = 100 P_2^{-1.0}$$

$$D3: \quad Q_3 = 100 P_3^{-1.25}$$

D1, D2 and D3 are referred to as “inelastic” ($\epsilon_1 = -0.5$), “unit elastic” ($\epsilon_2 = -1.0$) and “elastic” ($\epsilon_3 = -1.25$), respectively.

The SARR cost structure is

$$\begin{aligned} SAC &= \$50 + \$4 + \$8 + \$12 + \$1 Q_1 + \$1 Q_2 + \$1 Q_3 \\ &= \$74 + Q_1 + Q_2 + Q_3. \end{aligned}$$

That is, the fixed cost is \$74 and the marginal cost to serve each shipper is \$1.

Furthermore, the fixed cost can be separated into unattributable common cost of \$50 and shipper-specific attributable fixed costs of \$4, \$8 and \$12, for the inelastic, unit elastic and elastic shippers, respectively.

Ramsey Prices

Pricing at marginal cost for each shipper, while efficient, would result in a revenue shortfall of \$74. Thus, it is necessary to raise price above marginal cost.⁴ As

⁴ A non-linear pricing structure (a non-volumetric fee + a per-unit charge) can reduce the required per-unit price markup.

discussed above, Ramsey prices minimize the efficiency loss from raising prices above marginal costs by marking up prices in inverse proportion to the elasticity of demand. For this example, the Ramsey prices and resulting quantities and contributions to margin are

$$P_1 = \$1.53 \quad Q_1 = 80.72 \quad CTM_1 = \$39.16$$

$$P_2 = \$1.21 \quad Q_2 = 82.58 \quad CTM_2 = \$9.42$$

$$P_3 = \$1.16 \quad Q_3 = 82.90 \quad CTM_3 = \$1.42$$

Impact of Cost Decreases

Now, assume that the common cost, shipper-specific fixed costs and shipper-specific marginal costs each decrease by 20%. At the above Ramsey prices, revenues would now exceed SAC by 25%. Following the generalized percentage reduction method, which embodies the Ramsey pricing principles, the prices would be reduced by 30%, 24% and 23%, respectively, for the inelastic, unit elastic and elastic shippers. The new Ramsey prices, quantities and CTMs are

$$P_1 = \$1.07 \quad Q_1 = 96.52 \quad CTM_1 = \$23.18$$

$$P_2 = \$0.92 \quad Q_2 = 109.08 \quad CTM_2 = \$9.53$$

$$P_3 = \$0.89 \quad Q_3 = 115.56 \quad CTM_3 = \$7.29$$

In contrast, the equal percentage reduction method would require a price decrease of 26% for all three shippers to eliminate the excess revenue.

Exhibit B

TABLE A: TNRR ANNUAL COST OF CAPITAL

Year (1)	Industry Cost of Capital (2)	Industry Cost of Debt (3)	Industry Cost of Preferred Equity (4)	Industry Cost of Equity (5)	TNRR's Cost of Preferred Equity (7)	TNRR's Cost of Equity (8)	Debt as a Percent of Total Investment (9)	Preferred Equity as a Percent of Total Investment (10)	Equity as a Percent of Total Investment (11)	Composite Cost of Capital (12)	1 + Cost of Capital (13)	STB Prescribed Debt as a % of Capital (14)	STB Prescribed Preferred Equity as a % of Capital (15)
1998	1/ 10.69%	6.64%	6.19%	13.11%	6.19%	13.11%	36.01%	1.35%	62.64%	10.69%	1.1069	36.01%	1.35%
1999	2/ 10.76%	7.20%	6.30%	12.90%	6.30%	12.90%	35.50%	1.80%	62.70%	10.76%	1.1076	35.50%	1.80%
2000	3/ 11.57%	8.00%	6.30%	13.90%	6.30%	13.90%	37.14%	1.88%	60.98%	11.57%	1.1157	45.40%	2.50%
2001	4/ 10.48%	6.88%	6.26%	12.80%	6.29%	12.80%	37.14%	1.88%	60.98%	10.63%	1.1063		
2002	5/ 9.80%	6.00%	6.30%	12.60%	6.30%	12.60%	41.20%	2.10%	56.70%	9.80%	1.0980	41.20%	2.10%
2003		6.00%	6.30%	12.60%	6.30%	12.60%	41.20%	2.10%	56.70%	9.80%	1.0980		
2004		6.00%	6.30%	12.60%	6.30%	12.60%	41.20%	2.10%	56.70%	9.80%	1.0980		
2005		6.00%	6.30%	12.60%	6.30%	12.60%	41.20%	2.10%	56.70%	9.80%	1.0980		
2006		6.00%	6.30%	12.60%	6.30%	12.60%	41.20%	2.10%	56.70%	9.80%	1.0980		
2007		6.00%	6.30%	12.60%	6.30%	12.60%	41.20%	2.10%	56.70%	9.80%	1.0980		
2008		6.00%	6.30%	12.60%	6.30%	12.60%	41.20%	2.10%	56.70%	9.80%	1.0980		
2009		6.00%	6.30%	12.60%	6.30%	12.60%	41.20%	2.10%	56.70%	9.80%	1.0980		
2010		6.00%	6.30%	12.60%	6.30%	12.60%	41.20%	2.10%	56.70%	9.80%	1.0980		
2011		6.00%	6.30%	12.60%	6.30%	12.60%	41.20%	2.10%	56.70%	9.80%	1.0980		
2012		6.00%	6.30%	12.60%	6.30%	12.60%	41.20%	2.10%	56.70%	9.80%	1.0980		
2013		6.00%	6.30%	12.60%	6.30%	12.60%	41.20%	2.10%	56.70%	9.80%	1.0980		
2014		6.00%	6.30%	12.60%	6.30%	12.60%	41.20%	2.10%	56.70%	9.80%	1.0980		
2015		6.00%	6.30%	12.60%	6.30%	12.60%	41.20%	2.10%	56.70%	9.80%	1.0980		
2016		6.00%	6.30%	12.60%	6.30%	12.60%	41.20%	2.10%	56.70%	9.80%	1.0980		
2017		6.00%	6.30%	12.60%	6.30%	12.60%	41.20%	2.10%	56.70%	9.80%	1.0980		
2018		6.00%	6.30%	12.60%	6.30%	12.60%	41.20%	2.10%	56.70%	9.80%	1.0980		
2019		6.00%	6.30%	12.60%	6.30%	12.60%	41.20%	2.10%	56.70%	9.80%	1.0980		
2020		6.00%	6.30%	12.60%	6.30%	12.60%	41.20%	2.10%	56.70%	9.80%	1.0980		

- 1/ Decision in STB Ex Parte No. 558 (Sub No. 2) - Railroad Cost of Capital - 1998.
2/ Decision in STB Ex Parte No. 558 (Sub No. 3) - Railroad Cost of Capital - 1999.
3/ Decision in STB Ex Parte No. 558 (Sub No. 4) - Railroad Cost of Capital - 2000.
4/ Decision in STB Ex Parte No. 558 (Sub No. 5) - Railroad Cost of Capital - 2001.
5/ Decision in STB Ex Parte No. 558 (Sub No. 6) - Railroad Cost of Capital - 2002.

TABLE B: TNRR INFLATION INDEXES

Period (1)	Land 2/ (2)	RCAF-EIA 3/ (3)	MWSExFuel 4/ (4)	Mat & Suppl 5/ (5)	Wages & Supps 6/ (6)
1998 1 Qtr	100.0		295.5	234.0	308.5
1998 2 Qtr	100.7		294.7	231.3	308.1
1998 3 Qtr	101.4		292.6	232.7	305.2
1998 4 Qtr	102.1		292.6	231.0	305.6
1999 1 Qtr	102.8		290.7	229.3	303.7
1999 2 Qtr	103.5		290.8	229.1	303.8
1999 3 Qtr	104.3		294.3	233.1	307.2
1999 4 Qtr	105.0		293.8	231.5	306.9
2000 1 Qtr	105.7		305.8	227.5	322.0
2000 2 Qtr	106.5	0.516	305.6	226.4	322.0
2000 3 Qtr	107.2	0.514	309.0	229.4	325.4
2000 4 Qtr	108.0	0.517	309.1	230.0	325.4
2001 1 Qtr	108.7	0.526	316.6	228.9	334.4
2001 2 Qtr	109.5	0.519	318.1	234.9	335.3
2001 3 Qtr	110.2	0.519	320.5	235.5	338.0
2001 4 Qtr	111.0	0.516	320.5	235.6	338.0
2002 1 Qtr	111.8	0.513	329.9	234.6	349.4
2002 2 Qtr	112.6	0.503	329.8	233.5	349.3
2002 3 Qtr	113.4	0.500	331.9	226.3	353.2
2002 4 Qtr	114.1	0.519	330.8	218.0	353.4
2003 1 Qtr	114.9	0.514	335.0	213.1	359.3
2003 2 Qtr	115.7	0.522	339.1	235.4	360.1
2003 3 Qtr	116.6	0.523	343.2	232.0	365.6
2003 4 Qtr	117.4	0.520	343.5	235.6	365.3
2004 1 Qtr	118.2	0.519	345.2	235.6	367.5
2004 2 Qtr	119.0	0.517	345.3	234.7	367.9
2004 3 Qtr	119.8	0.522	350.3	235.4	374.1
2004 4 Qtr	120.7	0.527	354.4	236.3	379.0
2005 1 Qtr	121.5	0.526	356.1	236.3	381.3
2005 2 Qtr	122.4	0.525	356.4	236.3	381.6
2005 3 Qtr	123.2	0.526	356.6	236.8	384.3
2005 4 Qtr	124.1	0.529	359.1	237.5	384.7
2006 1 Qtr	125.0	0.534	361.7	238.2	387.9
2006 2 Qtr	125.8	0.531	364.4	238.9	391.0
2006 3 Qtr	126.7	0.529	367.0	239.6	394.2
2006 4 Qtr	127.6	0.527	369.7	240.3	397.4
2007 1 Qtr	128.5	0.537	372.2	241.2	400.4
2007 2 Qtr	129.4	0.536	374.7	242.1	403.3
2007 3 Qtr	130.3	0.535	377.3	243.0	406.3
2007 4 Qtr	131.2	0.533	379.9	243.9	409.3
2008 1 Qtr	132.1	0.544	382.3	244.8	412.3
2008 2 Qtr	133.0	0.542	384.8	245.6	415.2
2008 3 Qtr	134.0	0.541	387.4	246.5	418.2
2008 4 Qtr	134.9	0.539	389.9	247.4	421.2
2009 1 Qtr	135.8	0.550	392.6	248.2	424.4
2009 2 Qtr	136.8	0.549	395.3	249.0	427.7
2009 3 Qtr	137.7	0.547	398.1	249.8	431.0
2009 4 Qtr	138.7	0.545	400.8	250.6	434.3
2010 1 Qtr	139.7	0.556	403.5	251.4	437.5
2010 2 Qtr	140.7	0.555	406.2	252.2	440.7
2010 3 Qtr	141.6	0.553	408.9	253.0	444.0
2010 4 Qtr	142.5	0.552	411.7	253.8	447.3

1/ 4Q2020 + 1Q1998*(1/21) - 1. The Annual Rate is used to develop asset replacement values at the end of asset lives.

2/ Used to index Road Property Account 2 developed in TNR Land Appreciation.xls

3/ Used to index expenses in Table K developed and shown in Exhibit III-G.

4/ Used to index Road Property Accounts 3, 6, 13, 17, 19, 20, 26, 27, and 39. Actual RCR-West indices through 4Q2003 the forecasted using Col (5) & (6).

5/ Used to index Road Property Accounts 8, 9, and 11. Actual RCR-West index through 4Q2003 and then forecasted by Global Insight Material & Supp.index

6/ Used to index Road Property Accounts 1, 1A and 12. Actual RCR-West index through 4Q2003 and then forecasted by Global Insight Labor index.

TABLE B: TNRR INFLATION INDEXES
(Continued)

Period (1)	Land 2/ (2)	RCAF-EIA 3/ (3)	MWSExFuel 4/ (4)	Mat & Suppl 5/ (5)	Wages & Supps 6/ (6)
2011 1 Qtr	143.8	0.564	414.6	254.8	450.7
2011 2 Qtr	145.0	0.562	417.5	255.7	454.2
2011 3 Qtr	146.2	0.561	420.4	256.7	457.7
2011 4 Qtr	147.4	0.559	423.3	257.6	461.2
2012 1 Qtr	148.6	0.571	426.2	258.5	464.6
2012 2 Qtr	149.8	0.569	429.1	259.4	468.0
2012 3 Qtr	151.0	0.567	432.0	260.3	471.5
2012 4 Qtr	152.3	0.566	434.9	261.2	475.0
2013 1 Qtr	153.5	0.578	438.0	262.3	478.6
2013 2 Qtr	154.8	0.577	441.0	263.3	482.3
2013 3 Qtr	156.1	0.575	444.1	264.4	486.0
2013 4 Qtr	157.4	0.573	447.3	265.4	489.7
2014 1 Qtr	158.6	0.586	450.4	266.5	493.5
2014 2 Qtr	160.0	0.585	453.6	267.5	497.3
2014 3 Qtr	161.3	0.583	456.8	268.6	501.1
2014 4 Qtr	162.6	0.582	460.0	269.7	504.9
2015 1 Qtr	163.9	0.595	463.2	270.7	508.8
2015 2 Qtr	165.3	0.593	466.5	271.8	512.7
2015 3 Qtr	166.6	0.592	469.8	272.9	516.6
2015 4 Qtr	168.0	0.590	473.1	274.0	520.6
2016 1 Qtr	169.4	0.603	476.4	275.1	524.5
2016 2 Qtr	170.8	0.601	479.8	276.2	528.6
2016 3 Qtr	172.2	0.600	483.2	277.3	532.6
2016 4 Qtr	173.6	0.598	486.6	278.4	536.7
2017 1 Qtr	175.0	0.611	490.0	279.5	540.8
2017 2 Qtr	176.5	0.610	493.4	280.6	545.0
2017 3 Qtr	177.9	0.608	496.9	281.7	549.1
2017 4 Qtr	179.4	0.606	500.4	282.8	553.3
2018 1 Qtr	180.9	0.620	503.9	283.9	557.6
2018 2 Qtr	182.3	0.618	507.5	285.1	561.8
2018 3 Qtr	183.8	0.616	511.1	286.2	566.2
2018 4 Qtr	185.4	0.615	514.7	287.3	570.5
2019 1 Qtr	186.9	0.629	518.3	288.5	574.9
2019 2 Qtr	188.4	0.627	521.9	289.6	579.3
2019 3 Qtr	190.0	0.625	525.6	290.8	583.7
2019 4 Qtr	191.5	0.623	529.3	291.9	588.2
2020 1 Qtr	193.1	0.637	533.0	293.1	592.7
2020 2 Qtr	194.7	0.636	536.8	294.3	597.2
2020 3 Qtr	196.3	0.634	540.6	295.4	601.8
2020 4 Qtr	197.9	0.632	544.4	296.6	606.4
Annual Inflation Rate 1/	3.15%	xxx	2.82%	1.08%	3.12%

1/ 4Q2020 - 1Q1998*(1/21) - 1. The Annual Rate is used to develop asset replacement values at the end of asset lives

2/ Used to index Road Property Account 2 developed in TNRR Land Appreciation.xls

3/ Used to index expenses in Table K developed and shown in Exhibit III-G

4/ Used to index Road Property Accounts 3, 6, 13, 17, 19, 20, 26, 27, and 39. Actual RCR-West indices through 4Q2003 the forecasted using Col (5) & (6).

5/ Used to index Road Property Accounts 8, 9, and 11. Actual RCR-West index through 4Q2003 and then forecasted by Global Insight Material & Supp index.

6/ Used to index Road Property Accounts 1, 1A and 12. Actual RCR-West through 4Q2003 and then forecasted by Global Insight Labor index.

TABLE C: TNRR ROAD PROPERTY INVESTMENT VALUES

Construction of the TNRR occurs between January 1, 1998 and June 15, 2000.
Investments are assumed to be in June 16, 2000 dollars.

Road Property Account (1)	Road Property Component (2)	Service Life In Years 1/ (3)	Investment In 3Q1998 Dollars 2/ (4)	Investment In 3Q1999 Dollars 3/ (5)	Investment In 6/16/2000 Dollars 4/ (6)	1998 Investment Value 5/ (7)	1999 Investment Value 6/ (8)	2000 Investment Value 7/ (9)	Total Property Investment June 16, 2000 8/ (10)
1	Engineering	NA	\$129,038,482	\$129,884,081	\$137,579,037	\$96,778,861	\$32,471,020	\$0	\$129,249,882
2	Land	NA	88,075,652	89,934,049	89,000,000	66,056,739	22,483,512	0	88,540,251
3	Grading	95	611,792,715	615,347,218	646,083,216	0	615,347,218	0	615,347,218
1A	Training & Startup	NA	6,874,855	7,193,848	7,527,643	0	0	7,527,643	7,527,643
6	Bridges & Culverts	80	207,231,534	208,435,545	218,846,699	0	164,664,081	45,957,807	210,621,888
8	Ties	30	178,753,032	179,060,300	176,218,073	0	134,295,225	44,054,518	178,349,743
9	Rails and OTM	26	474,934,220	475,750,609	468,199,012	0	356,812,956	117,049,753	473,862,709
11	Ballast	23	188,646,483	188,970,757	185,971,221	0	141,728,068	46,492,805	188,220,873
12	Labor	26	332,507,174	334,686,120	354,514,529	0	251,014,590	88,628,632	339,643,222
13	Fences and Roadway Signs	80	8,267,187	8,315,219	8,730,556	0	6,236,414	2,182,639	8,419,053
16	Station and Office Buildings	32	1,834,525	1,919,647	2,008,718	0	1,439,735	502,180	1,941,915
17	Roadway Buildings	27	3,384,429	3,404,093	3,574,124	0	2,553,070	893,531	3,446,601
19	Fuel Stations	31	8,216,134	8,263,869	8,676,642	0	6,197,902	2,169,160	8,367,062
20	Shops and Enginehouses	50	14,183,824	14,266,232	14,978,816	0	10,699,674	3,744,704	14,444,378
26	Communications Systems	25	13,870,073	13,950,658	14,647,480	0	10,462,994	3,661,870	14,124,863
27	Signals and interlockers	33	116,211,276	116,886,461	122,724,827	0	87,664,846	30,681,207	118,346,053
39	Public improvements	55	10,802,912	10,865,677	11,408,407	0	8,149,258	2,852,102	11,001,359
	Total		\$2,394,624,507	\$2,407,134,382	\$2,470,688,999	\$162,835,601	\$1,852,220,562	\$396,398,551	\$2,411,454,713

1/ BNSF Discovery BNSF/AEPTX 00007.

2/ June 16, 2000 (Column (6)), indexed to 1998 dollars; Column (6) + Inflation Index from Table B, 2Q2000 + 3Q1998.

3/ June 16, 2000 (Column (6)), indexed to 1999 dollars; Column (6) + Inflation Index from Table B, 2Q2000 + 3Q1999.

4/ June 16, 2000 (Column (6)), indexed to June 16, 2000 dollars; Column (6) + Inflation Index from Table B, 2Q2000 + 2Q2000.

5/ Column (4) x Percent constructed in 1998 identified in Construction Schedule.xls.

6/ Column (5) x Percent constructed in 1999 identified in Construction Schedule.xls.

7/ Column (6) x Percent constructed in 2000 identified in Construction Schedule.xls.

8/ Sum of Column's (7) through (9).

TABLE D: INTEREST DURING CONSTRUCTION

Month of Installation (1)	Cost of Funds 1/ (2)	Timing of Account 1 Investment 2/ (3)	Timing of Account 2 Investment 2/ (4)	Timing of Accounts 3 And 6 Investment 2/ (5)	Timing of Accounts 8 Through 39 Investment 2/ (6)	Total Investment by Month 3/ (7)	Interest During Construction 4/ (8)	Cost of Debt 5/ (9)	Deductible Interest During Construction 6/ (10)
Jan-98	0.85%	\$8,064,905				\$8,064,905	\$0	0.54%	0
Feb-98	0.85%	8,064,905				8,064,905	68,528	0.54%	15,600
Mar-98	0.85%	8,064,905				8,064,905	137,638	0.54%	31,334
Apr-98	0.85%	8,064,905				8,064,905	207,335	0.54%	47,200
May-98	0.85%	8,064,905				8,064,905	277,625	0.54%	63,202
Jun-98	0.85%	8,064,905				8,064,905	348,512	0.54%	79,339
Jul-98	0.85%	8,064,905	\$11,009,457			19,074,362	420,001	0.54%	94,260
Aug-98	0.85%	8,064,905	11,009,457			19,074,362	585,646	0.54%	131,435
Sep-98	0.85%	8,064,905	11,009,457			19,074,362	752,698	0.54%	168,926
Oct-98	0.85%	8,064,905	11,009,457			19,074,362	921,169	0.54%	206,736
Nov-98	0.85%	8,064,905	11,009,457			19,074,362	1,091,072	0.54%	244,867
Dec-98	0.85%	8,064,905	11,009,457			19,074,362	1,262,419	0.54%	283,322
Jan-99	0.86%	8,117,755	11,241,756			19,359,511	1,444,320	0.58%	348,421
Feb-99	0.86%	8,117,755	11,241,756	\$117,527,332		136,886,843	1,622,212	0.58%	391,335
Mar-99	0.86%	8,117,755		117,527,332		125,645,087	2,806,591	0.58%	677,049
Apr-99	0.86%	8,117,755		117,527,332	\$113,028,303	238,673,390	3,904,970	0.58%	942,017
May-99	0.86%	0	0	117,527,332	113,028,303	230,555,635	5,979,237	0.58%	1,442,403
Jun-99	0.86%	0	0	117,527,332	113,028,303	230,555,635	8,001,826	0.58%	1,930,323
Jul-99	0.86%	0	0	117,527,332	113,028,303	230,555,635	10,041,710	0.58%	2,534,052
Aug-99	0.86%	0	0	14,969,462	113,028,303	127,997,765	12,099,038	0.58%	3,053,224
Sep-99	0.86%	0	0	14,969,462	113,028,303	127,997,765	13,296,993	0.58%	3,355,532
Oct-99	0.86%	0	0	14,969,462	113,028,303	127,997,765	14,505,193	0.58%	3,660,424
Nov-99	0.86%	0	0	14,969,462	113,028,303	127,997,765	15,723,723	0.58%	3,967,924
Dec-99	0.86%	0	0	14,969,462	113,028,303	127,997,765	16,952,674	0.58%	4,278,052
Jan-00	0.92%	0	0	15,319,269	114,304,367	129,623,636	19,492,532	0.64%	5,083,344
Feb-00	0.92%	0	0	15,319,269	114,304,367	129,623,636	20,858,756	0.64%	5,439,633
Mar-00	0.92%	0	0	15,319,269	114,304,367	129,623,636	22,237,497	0.64%	5,799,187
Apr-00	0.92%	0	0	0	0	0	23,628,871	0.64%	6,162,036
May-00	0.92%	0	0	0	0	0	23,845,362	0.64%	6,218,493
Jun-00	0.92%	0	0	0	0	0	24,063,837	0.64%	6,275,468
Total		\$129,249,882	\$88,540,251	\$825,969,106	\$1,360,167,832	\$2,403,927,071	\$246,577,983		\$62,925,138

1/ $((1 + \text{Cost of Capital from Table A for the applicable year})^{(1/12)} - 1) \times 100$.

2/ Applicable account value from Table C for the applicable investment period.

3/ Sum of Columns (3) through (6).

4/ Feb 98 equals Column (2) x prior Column (7), all other periods equal Column (2) x ((Sum of Column (7) for all prior periods) + (Sum of Column (8) for all prior periods)).

5/ $((1 + \text{Cost of Debt from Table A for the applicable year})^{(1/12)} - 1) \times 100$.

6/ Feb 98 equals prior Column (7) x Column (9) x Table A, Column (9) for 1998, all other periods equal Column (9) x ((Sum of Column (7) for all prior periods) + (Sum of Column (8) for all prior periods)) x Table A, Column (9) for the applicable year.

TABLE E: TNRR AMORTIZATION SCHEDULE OF ASSETS PURCHASED WITH DEBT CAPITAL

[illegible]

- 1) From Table D, Column (7) for the applicable year investment.
- 2) From Table D, Column (8) for the applicable year investment.
- 3) From Table D, Column (6) for the applicable year investment.
- 4) Total Investment + IDC x (Proportion of Debt from Table A, Column (9)).
- 5) From Table A, Column (8) for the applicable year investment.
- 6) Weighted life of assets in years x 4.
- 7) Line 3 Principal financed over years x 4.
- 8) Current quarter Beginning Balance - Principal.
- 9) Current quarter Ending Balance + (1) x The Quarterly Interest Rate).

TABLE E. TNRR AMORTIZATION SCHEDULE OF ASSETS PURCHASED WITH DEBT CAPITAL
(Continued)

AMORTIZATION SCHEDULE FOR THE TNRR 1998 ROAD PROPERTY INVESTMENT FOR THE 202000 START-UP									
Quarter	Balance	Ending Balance	Payment	Principal	Interest	Quarter	Balance	Ending Balance	Payment
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1	\$68,649,830	\$68,591,013	\$1,066,174	\$58,817	\$1,007,357	21	\$796,564,190	\$795,881,714	\$12,371,136
2	68,591,013	68,531,332	1,066,174	59,681	1,006,494	22	795,881,714	795,189,224	12,371,136
3	68,531,332	68,470,776	1,066,174	60,556	1,005,618	23	795,189,224	794,486,572	12,371,136
4	68,470,776	68,409,331	1,066,174	61,445	1,004,730	24	794,486,572	793,773,809	12,371,136
5	68,409,331	68,346,985	1,066,174	62,346	1,003,828	25	793,773,809	793,050,184	12,371,136
6	68,346,985	68,283,723	1,066,174	63,261	1,002,913	26	793,050,184	792,316,144	12,371,136
7	68,283,723	68,219,534	1,066,174	64,190	1,001,985	27	792,316,144	791,571,333	12,371,136
8	68,219,534	68,154,402	1,066,174	65,132	1,001,043	28	791,571,333	790,815,593	12,371,136
9	68,154,402	68,088,315	1,066,174	66,087	1,000,087	29	790,815,593	790,048,763	12,371,136
10	68,088,315	68,021,258	1,066,174	67,057	999,117	30	790,048,763	789,270,681	12,371,136
11	68,021,258	67,953,217	1,066,174	68,041	998,133	31	789,270,681	788,481,181	12,371,136
12	67,953,217	67,884,177	1,066,174	69,039	997,135	32	788,481,181	787,680,096	12,371,136
13	67,884,177	67,814,125	1,066,174	70,053	996,122	33	787,680,096	786,867,256	12,371,136
14	67,814,125	67,743,045	1,066,174	71,080	995,094	34	786,867,256	786,042,489	12,371,136
15	67,743,045	67,670,921	1,066,174	72,123	994,051	35	786,042,489	785,205,619	12,371,136
16	67,670,921	67,597,739	1,066,174	73,162	992,993	36	785,205,619	784,356,469	12,371,136
17	67,597,739	67,523,484	1,066,174	74,256	991,919	37	784,356,469	783,494,859	12,371,136
18	67,523,484	67,448,138	1,066,174	75,345	990,829	38	783,494,859	782,620,808	12,371,136
19	67,448,138	67,371,687	1,066,174	76,451	989,724	39	782,620,808	781,733,524	12,371,136
20	67,371,687	67,294,115	1,066,174	77,573	988,602	40	781,733,524	780,833,425	12,371,136

AMORTIZATION SCHEDULE FOR THE TNRR 1999 ROAD PROPERTY INVESTMENT FOR THE 202000 START-UP									
1	TOTAL INVESTMENT	1	\$1,852,220,562	1/	\$882,478	11	\$11,888,860	21	\$174,116,089
2	IDC	2/	\$106,378,487	2/	692,491	11	11,878,846	22	173,968,910
3	PRINCIPAL	3/	\$695,302,862	3/	702,652	11	11,668,484	23	173,815,543
4	INTEREST	4/	7.2%	4/	712,963	11	11,658,174	24	173,661,955
5	TERM	5/	212 Quarters	5/	723,425	11	11,637,096	25	173,508,112
6	PAYMENT	6/	\$12,505,503 Per Quarter	6/	734,040	11	11,626,325	26	173,347,984
7	Beginning Balance	7/		7/	744,611	11	11,615,396	27	173,187,534
8	Ending Balance	8/		8/	755,740	11	11,604,306	28	173,024,731
9	Payment	9/		9/	768,830	11	11,593,054	29	172,859,538
10	Principal	10/		10/	778,082	11	11,581,637	30	172,691,921
11	Interest	11/		11/	789,500	11	11,570,052	31	172,521,845
12	Quarter	12/		12/	801,085	11	11,558,297	32	172,349,273
13	Balance	13/		13/	812,840	11	11,546,389	33	172,174,169
14	Ending Balance	14/		14/	824,787	11	11,534,267	34	171,996,495
15	Payment	15/		15/	836,870	11	11,521,986	35	171,816,214
16	Principal	16/		16/	849,150	11	11,509,528	36	171,633,288
17	Interest	17/		17/	861,610	11	11,496,883	37	171,447,878
18	Quarter	18/		18/	874,253	11	11,484,054	38	171,259,344
19	Balance	19/		19/	887,082	11	11,471,037	39	171,068,246
20	Ending Balance	20/		20/	900,099	11		40	170,874,344

AMORTIZATION SCHEDULE FOR THE TNRR 2000 ROAD PROPERTY INVESTMENT FOR THE 202000 START-UP									
1	TOTAL INVESTMENT	1/	\$388,870,908	1/	\$149,178	16	\$2,704,131	21	\$173,966,910
2	IDC	2/	\$134,126,854	2/	151,367	16	2,704,131	22	173,815,543
3	PRINCIPAL	3/	\$194,220,544	3/	153,568	16	2,704,131	23	173,661,955
4	INTEREST	4/	8.0%	4/	155,842	16	2,704,131	24	173,508,112
5	TERM	5/	212 Quarters	5/	158,129	16	2,704,131	25	173,347,984
6	PAYMENT	6/	\$3,838,124 Per Quarter	6/	160,449	16	2,704,131	26	173,187,534
7	Beginning Balance	7/		7/	162,804	16	2,704,131	27	173,024,731
8	Ending Balance	8/		8/	165,193	16	2,704,131	28	172,859,538
9	Payment	9/		9/	167,617	16	2,704,131	29	172,691,921
10	Principal	10/		10/	170,076	16	2,704,131	30	172,521,845
11	Interest	11/		11/	172,521	16	2,704,131	31	172,349,273
12	Quarter	12/		12/	174,174	16	2,704,131	32	172,174,169
13	Balance	13/		13/	176,874	16	2,704,131	33	171,996,495
14	Ending Balance	14/		14/	179,628	16	2,704,131	34	171,816,214
15	Payment	15/		15/	182,432	16	2,704,131	35	171,633,288
16	Principal	16/		16/	185,281	16	2,704,131	36	171,447,878
17	Interest	17/		17/	188,160	16	2,704,131	37	171,259,344
18	Quarter	18/		18/	191,098	16	2,704,131	38	171,068,246
19	Balance	19/		19/	194,029	16	2,704,131	39	170,874,344
20	Ending Balance	20/		20/	197,000	16	2,704,131	40	170,677,597

1/ From Table D, Column (7) for the applicable year investment.
2/ From Table D, Column (8) for the applicable year investment.
3/ (Total Investment + IDC) x (Proportion of Debt from Table A, Column (8)).
4/ From Table A, Column (6) for the applicable year investment.
5/ Weighted life of assets in years x 4.
6/ Line 3 Principal financed over Line 5 Term at Line 4 Interest Rate on a quarterly basis.
7/ Current quarter Beginning Balance - Principal.
8/ Current quarter Payment - Interest.
9/ Current quarter Beginning Balance x (1 + The Quarterly Interest Rate).

TABLE E. INRR AMORTIZATION SCHEDULE OF ASSETS PURCHASED WITH DEBT CAPITAL
(Continued)

AMORTIZATION SCHEDULE FOR THE INRR 1998 ROAD PROPERTY INVESTMENT FOR THE 202000 START-UP									
Quarter (1)	Beginning Balance (2)	Ending Balance (3)	Payment (4)	Principal (5)	Interest (6)	Quarter (7)	Payment (10)	Principal (11)	Interest (12)
1	\$65,479,862	\$65,374,529	\$1,066,174	\$105,333	\$960,841	61	\$12,371,136	\$1,222,211	\$11,148,926
2	65,374,529	65,267,650	1,066,174	106,174	959,296	62	12,371,136	1,240,145	11,130,991
3	65,267,650	65,159,203	1,066,174	106,447	957,727	63	12,371,136	1,258,343	11,112,794
4	65,159,203	65,049,165	1,066,174	110,038	956,136	64	12,371,136	1,276,807	11,094,329
5	65,049,165	64,937,512	1,066,174	111,653	954,521	65	12,371,136	1,295,543	11,075,593
6	64,937,512	64,824,220	1,066,174	113,291	952,883	66	12,371,136	1,314,554	11,056,583
7	64,824,220	64,709,268	1,066,174	114,954	951,221	67	12,371,136	1,333,843	11,037,293
8	64,709,268	64,592,628	1,066,174	116,641	949,534	68	12,371,136	1,353,416	11,017,720
9	64,592,628	64,474,273	1,066,174	118,352	947,822	69	12,371,136	1,373,276	10,997,861
10	64,474,273	64,354,184	1,066,174	120,089	946,086	70	12,371,136	1,393,427	10,977,709
11	64,354,184	64,232,333	1,066,174	121,851	944,323	71	12,371,136	1,413,874	10,957,262
12	64,232,333	64,108,694	1,066,174	123,639	942,535	72	12,371,136	1,434,621	10,936,515
13	64,108,694	63,983,241	1,066,174	125,453	940,721	73	12,371,136	1,455,672	10,915,484
14	63,983,241	63,855,947	1,066,174	127,294	938,880	74	12,371,136	1,477,033	10,894,104
15	63,855,947	63,726,785	1,066,174	129,162	937,012	75	12,371,136	1,498,706	10,872,430
16	63,726,785	63,595,727	1,066,174	131,057	935,117	76	12,371,136	1,520,698	10,850,438
17	63,595,727	63,462,747	1,066,174	132,981	933,194	77	12,371,136	1,543,013	10,828,124
18	63,462,747	63,327,815	1,066,174	134,932	931,243	78	12,371,136	1,565,655	10,805,482
19	63,327,815	63,190,903	1,066,174	136,912	929,263	79	12,371,136	1,588,629	10,782,508
20	63,190,903	63,051,982	1,066,174	138,921	927,254	80	12,371,136	1,611,940	10,759,196
21	63,051,982	62,911,023	1,066,174	140,959	925,215	81	12,371,136	1,635,593	10,735,543
22	62,911,023	62,767,995	1,066,174	143,028	923,147	82	12,371,136	1,659,584	10,711,543
23	62,767,995	62,622,868	1,066,174	145,127	921,048	83	12,371,136	1,683,946	10,687,190

1/ From Table D, Column (7) for the applicable year investment.
2/ From Table D, Column (8) for the applicable year investment.
3/ Total Investment - IDO x (Proportion of Debt from Table A, Column (9)).
4/ From Table A, Column (6) for the applicable year investment.
5/ Weighted life of assets in years x 4.
6/ Line 3 Principal financed over Line 5 Term at Line 4 Interest Rate on a quarterly basis.
7/ Current quarter Beginning Balance - Principal.
8/ Current quarter Payment - Interest.
9/ Current quarter Beginning Balance x (1 + The Quarterly Interest Rate).

**AMORTIZATION SCHEDULE FOR
THE INRR 2000 ROAD PROPERTY
INVESTMENT FOR THE 202000 START-UP**

Quarter (1)	Beginning Balance (2)	Ending Balance (3)	Payment (4)	Principal (5)	Interest (6)	Quarter (7)	Payment (10)	Principal (11)	Interest (12)
1	\$186,076,120	\$185,808,964	\$2,704,131	\$166,076,120	\$11,148,926	61	\$166,076,120	\$165,808,964	\$11,148,926
2	185,808,964	185,537,888	2,704,131	165,808,964	11,130,991	62	185,808,964	165,537,888	11,130,991
3	185,537,888	185,262,835	2,704,131	165,537,888	11,112,794	63	185,537,888	165,262,835	11,112,794
4	185,262,835	184,983,745	2,704,131	165,262,835	11,094,329	64	185,262,835	164,983,745	11,094,329
5	184,983,745	184,700,580	2,704,131	164,983,745	11,075,593	65	184,700,580	164,700,580	11,075,593
6	184,700,580	184,413,220	2,704,131	164,700,580	11,056,583	66	184,413,220	164,413,220	11,056,583
7	184,413,220	184,121,664	2,704,131	164,413,220	11,037,293	67	184,121,664	164,121,664	11,037,293
8	184,121,664	183,825,829	2,704,131	164,121,664	11,017,720	68	183,825,829	163,825,829	11,017,720
9	183,825,829	183,525,653	2,704,131	163,825,829	10,997,861	69	183,525,653	163,525,653	10,997,861
10	183,525,653	183,221,072	2,704,131	163,525,653	10,977,709	70	183,221,072	163,221,072	10,977,709
11	183,221,072	182,912,022	2,704,131	163,221,072	10,957,262	71	182,912,022	162,912,022	10,957,262
12	182,912,022	182,598,437	2,704,131	162,912,022	10,936,515	72	182,598,437	162,598,437	10,936,515
13	182,598,437	182,280,251	2,704,131	162,598,437	10,915,484	73	182,280,251	162,280,251	10,915,484
14	182,280,251	181,957,395	2,704,131	162,280,251	10,894,104	74	181,957,395	161,957,395	10,894,104
15	181,957,395	181,629,802	2,704,131	161,957,395	10,872,430	75	181,629,802	161,629,802	10,872,430
16	181,629,802	181,297,402	2,704,131	161,629,802	10,850,438	76	181,297,402	161,297,402	10,850,438
17	181,297,402	180,960,124	2,704,131	161,297,402	10,828,124	77	180,960,124	160,960,124	10,828,124
18	180,960,124	180,617,897	2,704,131	160,960,124	10,805,482	78	180,617,897	160,617,897	10,805,482
19	180,617,897	180,270,649	2,704,131	160,617,897	10,782,508	79	180,270,649	160,270,649	10,782,508
20	180,270,649	179,918,305	2,704,131	160,270,649	10,759,196	80	179,918,305	159,918,305	10,759,196
21	179,918,305	179,560,790	2,704,131	159,918,305	10,735,543	81	179,560,790	159,560,790	10,735,543
22	179,560,790	179,209,030	2,704,131	159,560,790	10,711,543	82	179,209,030	159,209,030	10,711,543
23	179,209,030	178,856,084	2,704,131	159,209,030	10,687,190	83	178,856,084	158,856,084	10,687,190

TABLE F: TNRR PRESENT VALUE OF REPLACEMENT COST

Road Property Account (1)	Road Property Component (2)	Service Life In Years 1/ (3)	Investment 2/ (4)	Salvage 3/ (5)	Replacement Year Asset Net Cost 4/ (6)	Replacement Cost Adjusted To Reflect An Infinite Life 5/ (7)	Present Value Of Replacement Cost Adjusted To Reflect An Infinite Life (2000 Dollars) 6/ (8)
3	Grading	95	\$9,687,644,346	\$0	\$8,537,500,620	\$8,543,829,899	\$566,734
5	Tunnels	NA	0	0	0	0	0
6	Bridges & Culverts	80	2,184,929,622	13,402,214	1,525,247,065	1,528,781,375	463,233
8	Ties	30	276,029,485	-112,776,632	243,198,614	271,027,663	12,988,498
9	Rails and OTM	26	702,545,712	29,073,045	422,263,014	490,482,836	35,244,911
11	Ballast	23	270,205,470	0	169,404,984	205,249,269	19,984,794
12	Labor	26	851,188,653	0	533,651,669	618,534,365	43,656,882
13	Fences and Roadway Signs	80	87,336,788	0	61,311,086	61,453,156	18,621
16	Station and Office Buildings	21	3,904,683	0	3,441,108	4,318,953	514,944
17	Roadway Buildings	27	8,188,647	0	6,410,589	7,359,398	477,896
19	Fuel Stations	29	21,015,967	0	18,520,894	20,828,091	1,104,528
20	Shops and Enginehouses	40	49,263,903	338,115	43,099,628	45,276,603	788,136
26	Communications Systems	25	32,023,756	1,186,701	19,377,050	22,702,797	1,748,298
27	Signals and interlockers	33	332,231,304	0	186,857,107	203,498,698	7,197,165
39	Public improvements	55	56,942,995	0	39,974,413	40,599,942	154,712
	Total		\$14,563,451,332	-\$68,776,556	\$11,810,257,841	\$12,063,943,045	\$124,909,351

1/ From Table C, Column (3).

2/ (Table C, Column (10) after allocation of Engineering) x (Table B, 1.0 + Annual Inflation Index)^(Column (3)).

3/ [(Column (4) x Salvage %) - (Table C, Column (10) after allocation of Engineering x Salvage %)] x (1 - Current Federal Tax Rate) + (Table C, Column (10) after allocation of Engineering x Salvage %). Salvage% from BNSF Discovery BNSF/AEPTX 00007.

4/ Column (4) - (Present Value of the remaining tax deductions for depreciation, interest expense and the Present Value of any salvage).

5/ Column (6) + [(Column (6) / ((1 + Real Cost of Capital)^(Column (3) - 1))].

6/ Column (7) / ((1 + Nominal Cost of Capital)^(Column (3))).

TABLE G: TNRR TAX DEPRECIATION SCHEDULES

Depreciation of Start-up investment for tax purposes using accounting lives from Modified Accelerated Cost Recovery System (MACRS) 1/

Road Property Account (1)	Road Property Component (2)	Asset Lives Per MACRS (3)	Total June 16, 2000 Investment (4)	Depreciable Base (5)
1	Engineering	5	\$129,249,882	\$129,249,882
2	Land	N/A	\$88,540,251	0
3	Grading	50	\$615,347,218	615,347,218
1A	Training & Startup	5	\$7,527,643	7,527,643
6	Bridges & Culverts	15	\$210,621,888	210,621,888
8	Ties	7	\$178,349,743	178,349,743
9	Rails and OTM	7	\$473,862,709	473,862,709
11	Ballast	7	\$188,220,873	188,220,873
12	Labor	7	\$339,643,222	339,643,222
13	Fences and Roadway Signs	15	\$8,419,053	8,419,053
16	Station and Office Buildings	15	\$1,941,915	1,941,915
17	Roadway Buildings	15	\$3,446,601	3,446,601
19	Fuel Stations	15	\$8,367,062	8,367,062
20	Shops and Enginehouses	15	\$14,444,378	14,444,378
26	Communications Systems	7	\$14,124,863	14,124,863
27	Signals and interlockers	7	\$118,346,053	118,346,053
39	Public improvements	15	\$11,001,359	11,001,359
	Total		\$2,411,454,713	\$2,322,914,462

1/ Applicable Depreciation Method: 200 or 150 percent

Declining Balance Switching to Straight Line

Applicable Recovery Periods: 7, 15 and 50 a/ years

Applicable Convention: Mid-quarter (property placed in service in second quarter)

The Depreciation Rates are as follows for the corresponding

Recovery Period and Recovery year:

Recovery Year	5-Year	7-year	15-year	50-year	Recovery Year	7-year	15-year	50-year
1	20.00%	17.85%	6.250%	2.00%	10	0.00%	5.900%	2.00%
2	20.00%	23.47%	9.380%	2.00%	11	0.00%	5.910%	2.00%
3	20.00%	16.76%	8.440%	2.00%	12	0.00%	5.900%	2.00%
4	20.00%	11.97%	7.590%	2.00%	13	0.00%	5.910%	2.00%
5	20.00%	8.87%	6.830%	2.00%	14	0.00%	5.900%	2.00%
6		8.87%	6.150%	2.00%	15	0.00%	5.910%	2.00%
7		8.87%	5.910%	2.00%	16	0.00%	2.210%	2.00%
8		3.33%	5.900%	2.00%	17	0.00%	0.000%	2.00%
9		0.00%	5.910%	2.00%	18	0.00%	0.000%	2.00%
					19-50	0.00%	0.000%	2.00%

a/ 50 year property uses the Straight Line Method for all time periods

TABLE G: TNRRA TAX DEPRECIATION SCHEDULES
(Continued)

Year (1)	Amortization - 5 Years			Depreciation - MACRS 7 Years			Depreciation - MACRS 15 Years			Depreciation - MACRS 50 Years			Total Annual Depreciation 10/ (14)
	Unamortized Investment 1/ (2)	Rate 2/ (3)	Annual Amort. 3/ (4)	Undepreciated Investment 4/ (5)	Rate 2/ (6)	Annual Amount 5/ (7)	Undepreciated Investment 6/ (8)	Rate 2/ (9)	Annual Amount 7/ (10)	Unamortized Investment 8/ (11)	Rate 2/ (12)	Annual Amount 9/ (13)	
1	\$136,777.524	20.00%	\$27,355.505	\$1,312,547,464	17.85%	\$234,289,722	\$258,242,256	6.25%	\$16,140,141	\$622,874,861	2%	\$12,457,497	\$390,242,865
2	109,422,019	20.00%	27,355.505	1,078,257,741	23.47%	308,054,890	242,102,115	9.38%	24,223,124	610,417,364	2%	12,457,497	372,091,015
3	82,066,515	20.00%	27,355.505	770,202,852	16.76%	219,982,955	217,878,991	8.44%	21,795,646	597,959,866	2%	12,457,497	281,591,603
4	54,711,010	20.00%	27,355.505	550,219,897	11.97%	157,111,931	196,083,345	7.59%	19,600,587	585,502,369	2%	12,457,497	216,525,621
5	27,355,505	20.00%	27,355.505	393,107,965	8.87%	116,422,960	176,482,758	6.83%	17,637,946	573,044,872	2%	12,457,497	173,873,908
6				276,685,005	8.87%	116,422,960	158,844,812	6.15%	15,881,899	560,587,375	2%	12,457,497	144,762,356
7				160,262,045	8.87%	142,962,913	127,700,796	5.91%	15,262,117	548,129,878	2%	12,457,497	144,142,575
8				43,839,085	3.34%	43,839,085	112,484,502	5.91%	15,262,117	535,672,380	2%	12,457,497	71,532,876
9							97,202,385	5.90%	15,236,293	523,214,883	2%	12,457,497	27,719,615
10							81,966,092	5.91%	15,262,117	510,757,386	2%	12,457,497	27,693,790
11							66,703,975	5.90%	15,236,293	498,299,889	2%	12,457,497	27,719,615
12							51,467,682	5.91%	15,262,117	485,842,391	2%	12,457,497	27,693,790
13							36,205,564	5.90%	15,236,293	473,384,894	2%	12,457,497	27,719,615
14							20,969,271	5.91%	15,262,117	460,927,397	2%	12,457,497	27,693,790
15							5,707,154	2.21%	5,707,154	448,469,900	2%	12,457,497	27,719,615
16										436,012,403	2%	12,457,497	18,164,651
17										423,554,905	2%	12,457,497	12,457,497
18										411,097,408	2%	12,457,497	12,457,497
19										398,639,911	2%	12,457,497	12,457,497
20										386,182,414	2%	12,457,497	12,457,497
21										373,724,917	2%	12,457,497	12,457,497
										361,267,419			

1/ From Table G, Page 11, Column (5), Road Property Accounts 1 and 1A.

2/ From Table G, Footnote 1/, Page 11.

3/ Column (2), Year 1 x Column (3).

4/ From Table G, Page 11, Column (5), Road Property Accounts 8, 9, 11, 12, 26, and 27.

5/ Column (5), Year 1 x Column (6).

6/ From Table G, Page 11, Column (5), Road Property Accounts 6, 13, 16, 17, 19, 20 and 39.

7/ Column (8), Year 1 x Column (9).

8/ From Table G, Page 11, Column (5), Road Property Account 3.

9/ Column (11), Year 1 x Column (12).

TABLE H: TNRR AVERAGE ANNUAL INFLATION IN ASSET PRICES

Development of average annual inflation factors for all capital assets

1. 2Q2000 Land value
2. 2Q2000 Road Property asset value accounts 3, 6, 13, 17, 26, 27, and 39
3. 2Q2000 Road Property asset value accounts 8, 9, and 11
4. 2Q2000 Road Property asset value account 1, 1A and 12

\$88,540,251 1/
\$1,013,588,033 1/
\$840,433,325 1/
\$468,893,104 1/

Period (1)	Quarter (2)	Inflation Index For Land 2/ (3)	Inflation Index For Line 2 Road Property Assets 3/ (4)	Inflation Index For Line 3 Road Property Assets 4/ (5)	Inflation Index For Line 4 Road Property Assets 5/ (6)	Land Value 6/ (7)	Road Property Value 7/ (8)	2Q2000 Inflation Index 8/ (9)
0		1.000	1.000	1.000	1.000	\$88,540,251	\$2,322,914,462	1.000
1	2000 2 Qtr	1.007	0.999	0.995	1.000	89,158,792	2,318,187,919	0.998
2	2000 3 Qtr	1.014	1.010	1.008	1.011	89,781,653	2,345,491,056	1.010
3	2000 4 Qtr	1.021	1.011	1.011	1.011	90,408,866	2,348,039,038	1.011
4	2001 1 Qtr	1.028	1.035	1.011	1.039	91,040,460	2,385,634,417	1.027
5	2001 2 Qtr	1.035	1.040	1.033	1.041	91,676,467	2,410,387,868	1.038
6	2001 3 Qtr	1.043	1.048	1.035	1.050	92,316,916	2,424,491,017	1.044
7	2001 4 Qtr	1.050	1.048	1.036	1.050	92,961,840	2,424,860,438	1.044
8	2002 1 Qtr	1.057	1.079	1.031	1.085	93,611,269	2,468,923,518	1.063
9	2002 2 Qtr	1.065	1.078	1.026	1.085	94,265,236	2,464,382,810	1.061
10	2002 3 Qtr	1.072	1.085	0.995	1.097	94,923,771	2,450,424,167	1.056
11	2002 4 Qtr	1.080	1.082	0.958	1.098	95,586,906	2,416,407,441	1.042
12	2003 1 Qtr	1.087	1.095	0.937	1.116	96,254,674	2,420,818,412	1.044
13	2003 2 Qtr	1.095	1.109	1.035	1.118	96,927,107	2,517,953,937	1.084
14	2003 3 Qtr	1.102	1.122	1.020	1.135	97,604,237	2,526,992,295	1.088
15	2003 4 Qtr	1.110	1.123	1.036	1.134	98,286,099	2,540,848,967	1.094
16	2004 1 Qtr	1.118	1.129	1.036	1.141	98,972,723	2,549,724,267	1.098
17	2004 2 Qtr	1.126	1.129	1.031	1.142	99,664,144	2,546,961,056	1.098
18	2004 3 Qtr	1.134	1.146	1.035	1.162	100,360,396	2,575,431,484	1.110
19	2004 4 Qtr	1.141	1.159	1.039	1.177	101,061,511	2,599,331,114	1.120
20	2005 1 Qtr	1.149	1.165	1.039	1.184	101,767,525	2,608,505,467	1.124

1/ Table C, Page 4, Column (10).

2/ Previous Column (3) x (1 + Quarterly Inflation Rate Change from Table B).

3/ Previous Column (4) x (1 + Quarterly Inflation Rate Change from Table B).

4/ Previous Column (5) x (1 + Quarterly Inflation Rate Change from Table B).

5/ Previous Column (6) x (1 + Quarterly Inflation Rate Change from Table B).

6/ Line 1 x Column (3) for applicable quarter.

7/ (Line 2 x Column (4) for applicable quarter) + (Line 3 x Column (5) for applicable quarter) + (Line 4 x Column (6) for applicable quarter).

8/ (Column (7) + Column (8)) + (Period 0; (Column (7) + Column (8))).

TABLE H: TNRR AVERAGE ANNUAL INFLATION IN ASSET PRICES
(Continued)

Development of average annual inflation factors for all capital assets

1. 2Q2000 Land value
2. 2Q2000 Road Property asset value accounts 3, 6, 13, 17, 26, 27, and 39
3. 2Q2000 Road Property asset value accounts 8, 9, and 11
4. 2Q2000 Road Property asset value account 1, 1A and 12

\$88,540,251 1/
\$1,013,588,033 1/
\$840,433,325 1/
\$468,893,104 1/

Period (1)	Quarter (2)	Inflation Index For Land 2/ (3)	Inflation Index For Line 2 Road Property Assets 3/ (4)	Inflation Index For Line 3 Road Property Assets 4/ (5)	Inflation Index For Line 4 Road Property Assets 5/ (6)	Land Value 6/ (7)	Road Property Value 7/ (8)	2Q2000 Inflation Index 8/ (9)
21	2005 2 Qtr	1.157	1.166	1.039	1.185	102,478,470	2,610,042,715	1.125
22	2005 3 Qtr	1.166	1.173	1.041	1.193	103,194,383	2,622,955,903	1.131
23	2005 4 Qtr	1.174	1.174	1.044	1.195	103,915,296	2,627,882,497	1.133
24	2006 1 Qtr	1.182	1.183	1.047	1.205	104,641,246	2,643,736,944	1.140
25	2006 2 Qtr	1.190	1.192	1.050	1.214	105,372,268	2,659,699,555	1.147
26	2006 3 Qtr	1.198	1.200	1.053	1.224	106,108,396	2,675,771,114	1.154
27	2006 4 Qtr	1.207	1.209	1.056	1.234	106,849,667	2,691,952,416	1.161
28	2007 1 Qtr	1.215	1.217	1.060	1.243	107,596,116	2,707,885,217	1.168
29	2007 2 Qtr	1.224	1.225	1.064	1.253	108,347,780	2,723,918,822	1.175
30	2007 3 Qtr	1.232	1.234	1.068	1.262	109,104,695	2,740,053,897	1.182
31	2007 4 Qtr	1.241	1.242	1.072	1.271	109,866,898	2,756,291,114	1.189
32	2008 1 Qtr	1.250	1.250	1.076	1.280	110,634,426	2,771,953,927	1.195
33	2008 2 Qtr	1.258	1.258	1.080	1.290	111,407,316	2,787,712,386	1.202
34	2008 3 Qtr	1.267	1.267	1.084	1.299	112,185,605	2,803,567,102	1.209
35	2008 4 Qtr	1.276	1.275	1.087	1.308	112,969,331	2,819,518,692	1.216
36	2009 1 Qtr	1.285	1.284	1.091	1.318	113,758,532	2,836,113,677	1.223
37	2009 2 Qtr	1.294	1.293	1.094	1.328	114,553,247	2,852,816,070	1.231
38	2009 3 Qtr	1.303	1.302	1.098	1.338	115,353,513	2,869,626,607	1.238
39	2009 4 Qtr	1.312	1.311	1.101	1.349	116,159,370	2,886,546,026	1.245
40	2010 1 Qtr	1.321	1.319	1.105	1.359	116,970,857	2,903,150,330	1.252

- 1/ Table C, Page 4, Column (10).
- 2/ Previous Column (3) x (1 + Quarterly Inflation Rate Change from Table B).
- 3/ Previous Column (4) x (1 + Quarterly Inflation Rate Change from Table B).
- 4/ Previous Column (5) x (1 + Quarterly Inflation Rate Change from Table B).
- 5/ Previous Column (6) x (1 + Quarterly Inflation Rate Change from Table B).
- 6/ Line 1 x Column (3) for applicable quarter.
- 7/ (Line 2 x Column (4) for applicable quarter) + (Line 3 x Column (5) for applicable quarter) + (Line 4 x Column (6) for applicable quarter).
- 8/ (Column (7) + Column (8)) + (Period 0; (Column (7) + Column (8))).

TABLE H: T&NRR AVERAGE ANNUAL INFLATION IN ASSET PRICES
(Continued)

Development of average annual inflation factors for all capital assets

1. 2Q2000 Land value
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\$88,540,251 1/
\$1,013,588,033 1/
\$840,433,325 1/
\$468,893,104 1/

Period (1)	Quarter (2)	Inflation Index For Land 2/ (3)	Inflation Index For Road Property Assets 3/ (4)	Inflation Index For Road Property Assets 4/ (5)	Inflation Index For Road Property Assets 5/ (6)	Land Value 6/ (7)	Road Property Value 7/ (8)	2Q2000 Inflation Index 8/ (9)
41	2010 2 Qtr	1.330	1.328	1.109	1.369	\$117,788,013	\$2,919,858,997	1.260
42	2010 3 Qtr	1.340	1.337	1.112	1.379	118,610,877	2,936,672,721	1.267
43	2010 4 Qtr	1.349	1.346	1.116	1.389	119,439,490	2,953,592,197	1.274
44	2011 1 Qtr	1.360	1.356	1.120	1.400	120,421,643	2,971,632,255	1.282
45	2011 2 Qtr	1.371	1.365	1.124	1.411	121,411,872	2,989,790,465	1.290
46	2011 3 Qtr	1.383	1.375	1.128	1.421	122,410,244	3,008,067,637	1.298
47	2011 4 Qtr	1.394	1.384	1.132	1.432	123,416,825	3,026,464,587	1.306
48	2012 1 Qtr	1.405	1.394	1.136	1.443	124,431,684	3,044,238,950	1.314
49	2012 2 Qtr	1.417	1.403	1.140	1.454	125,454,887	3,062,125,839	1.322
50	2012 3 Qtr	1.429	1.413	1.144	1.464	126,486,505	3,080,126,000	1.330
51	2012 4 Qtr	1.440	1.422	1.148	1.475	127,526,605	3,098,240,186	1.338
52	2013 1 Qtr	1.452	1.432	1.153	1.486	128,575,259	3,117,528,291	1.346
53	2013 2 Qtr	1.464	1.442	1.157	1.498	129,632,535	3,136,943,744	1.355
54	2013 3 Qtr	1.476	1.452	1.162	1.509	130,698,505	3,156,487,422	1.363
55	2013 4 Qtr	1.488	1.463	1.167	1.521	131,773,241	3,176,160,206	1.372
56	2014 1 Qtr	1.501	1.473	1.171	1.533	132,856,815	3,195,962,982	1.380
57	2014 2 Qtr	1.513	1.483	1.176	1.544	133,949,298	3,215,896,645	1.389
58	2014 3 Qtr	1.525	1.494	1.181	1.556	135,050,766	3,235,962,096	1.398
59	2014 4 Qtr	1.538	1.504	1.185	1.568	136,161,290	3,256,160,240	1.407
60	2015 1 Qtr	1.550	1.515	1.190	1.580	137,280,947	3,276,491,991	1.416

1/ Table C, Page 4, Column (10).

2/ Previous Column (3) x (1 + Quarterly Inflation Rate Change from Table B).

3/ Previous Column (4) x (1 + Quarterly Inflation Rate Change from Table B).

4/ Previous Column (5) x (1 + Quarterly Inflation Rate Change from Table B).

5/ Previous Column (6) x (1 + Quarterly Inflation Rate Change from Table B).

6/ Line 1 x Column (3) for applicable quarter.

7/ (Line 2 x Column (4) for applicable quarter) + (Line 3 x Column (5) for applicable quarter) + (Line 4 x Column (6) for applicable quarter).

8/ (Column (7) + Column (8)) + (Period 0; (Column (7) + Column (8))).

TABLE H: T&NRR AVERAGE ANNUAL INFLATION IN ASSET PRICES
(Continued)

Development of average annual inflation factors for all capital assets

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3. 2Q2000 Road Property asset value accounts 8, 9, and 11
4. 2Q2000 Road Property asset value account 1, 1A and 12

\$88,540,251 1/
\$1,013,588,033 1/
\$840,433,325 1/
\$468,893,104 1/

Period (1)	Quarter (2)	Inflation Index For Land 2/ (3)	Inflation Index For Road 3/ Assets 4/ (4)	Inflation Index For Road 4/ Assets 5/ (5)	Inflation Index For Road 5/ Assets 6/ (6)	Land Value 6/ (7)	Road Property Value 7/ (8)	2Q2000 Inflation Index 8/ (9)
61	2015 2 Qtr	1.563	1.526	1.195	1.592	138,409,810	3,296,958,267	1.425
62	2015 3 Qtr	1.576	1.536	1.200	1.604	139,547,956	3,317,559,995	1.434
63	2015 4 Qtr	1.589	1.547	1.204	1.617	140,695,461	3,338,298,107	1.443
64	2016 1 Qtr	1.602	1.558	1.209	1.629	141,852,402	3,359,173,542	1.452
65	2016 2 Qtr	1.615	1.569	1.214	1.642	143,018,857	3,380,187,245	1.461
66	2016 3 Qtr	1.629	1.580	1.219	1.654	144,194,903	3,401,340,168	1.470
67	2016 4 Qtr	1.642	1.591	1.224	1.667	145,380,620	3,422,633,272	1.480
68	2017 1 Qtr	1.655	1.602	1.228	1.680	146,576,087	3,444,067,520	1.489
69	2017 2 Qtr	1.669	1.614	1.233	1.692	147,781,385	3,465,643,887	1.498
70	2017 3 Qtr	1.683	1.625	1.238	1.705	148,996,593	3,487,363,350	1.508
71	2017 4 Qtr	1.697	1.636	1.243	1.718	150,221,795	3,509,226,897	1.518
72	2018 1 Qtr	1.711	1.648	1.248	1.732	151,457,071	3,531,235,521	1.527
73	2018 2 Qtr	1.725	1.660	1.253	1.745	152,702,505	3,553,390,222	1.537
74	2018 3 Qtr	1.739	1.671	1.258	1.758	153,958,180	3,575,692,008	1.547
75	2018 4 Qtr	1.753	1.683	1.263	1.772	155,224,180	3,598,141,892	1.556
76	2019 1 Qtr	1.768	1.695	1.268	1.785	156,500,591	3,620,740,897	1.566
77	2019 2 Qtr	1.782	1.707	1.273	1.799	157,787,498	3,643,490,052	1.576
78	2019 3 Qtr	1.797	1.719	1.278	1.813	159,084,987	3,666,390,392	1.586
79	2019 4 Qtr	1.812	1.731	1.283	1.827	160,393,146	3,689,442,961	1.596
80	2020 1 Qtr	1.826	1.743	1.288	1.841	161,712,061	3,712,648,810	1.607
81	2020 2 Qtr	1.841	1.755	1.294	1.855	163,041,822	3,736,008,997	1.617
82	2020 3 Qtr	1.857	1.768	1.299	1.869	164,382,517	3,759,524,588	1.627
83	2020 4 Qtr	1.872	1.780	1.304	1.883	165,734,237	3,783,196,656	1.638
Annual Average 9/								2.57%

- 1/ Table C, Page 4, Column (10).
- 2/ Previous Column (3) x (1 + Quarterly Inflation Rate Change from Table B).
- 3/ Previous Column (4) x (1 + Quarterly Inflation Rate Change from Table B).
- 4/ Previous Column (5) x (1 + Quarterly Inflation Rate Change from Table B).
- 5/ Previous Column (6) x (1 + Quarterly Inflation Rate Change from Table B).
- 6/ Line 1 x Column (3) for applicable quarter.
- 7/ (Line 2 x Column (4) for applicable quarter) + (Line 3 x Column (5) for applicable quarter) + (Line 4 x Column (6) for applicable quarter).
- 8/ (Column (7) + Column (8)) + (Period 0; (Column (7) + Column (8))).
- 9/ Annual weighted inflation using the last two quarters, used to calculate real cost of capital.

TABLE I: TNRR DISCOUNTED CASH FLOW
(Continued)

Period (1)	Quarter (2)	Quarterly Levelized Capital Carrying Charge Requirement 7/ (3)	Interest on Investment Financed With Debt 8/ (4)	Depreciation 9/ Tax (5)	Actual Federal Tax Payments 10/ (6)	Actual State Tax Payments 11/ (7)	Cash Flow 12/ (8)	Present Value Cash Flow 13/ (9)	Cumulative Present Value 14/ (10)
26	2006 3 Qtr	\$67,270,274	\$15,183,691	\$36,035,644	\$0	\$0	\$67,270,274	\$37,188,693	\$1,208,304,473
27	2006 4 Qtr	67,679,488	15,169,637	36,035,644	0	0	67,679,488	36,550,574	1,244,855,047
28	2007 1 Qtr	68,082,819	15,155,377	17,883,219	0	0	68,082,819	35,918,987	1,280,774,034
29	2007 2 Qtr	68,488,714	15,140,908	17,883,219	0	0	68,488,714	35,298,396	1,316,072,430
30	2007 3 Qtr	68,897,189	15,126,226	17,883,219	0	0	68,897,189	34,688,608	1,350,761,038
31	2007 4 Qtr	69,308,262	15,111,329	17,883,219	0	0	69,308,262	34,089,435	1,384,850,473
32	2008 1 Qtr	69,705,574	15,096,213	6,929,904	0	0	69,705,574	33,492,820	1,418,343,293
33	2008 2 Qtr	70,105,328	15,080,876	6,929,904	0	0	70,105,328	32,906,724	1,451,250,016
34	2008 3 Qtr	70,507,540	15,065,313	6,929,904	0	0	70,507,540	32,330,960	1,483,580,976
35	2008 4 Qtr	70,912,227	15,049,522	6,929,904	0	0	70,912,227	31,765,345	1,515,346,321
36	2009 1 Qtr	71,332,604	15,033,500	6,923,448	0	0	71,332,604	31,215,475	1,546,561,796
37	2009 2 Qtr	71,755,712	15,017,242	6,923,448	10,944,909	997,735	59,813,069	25,569,802	1,572,131,598
38	2009 3 Qtr	72,181,569	15,000,746	6,923,448	17,046,207	1,553,927	53,581,435	22,376,648	1,594,508,247
39	2009 4 Qtr	72,610,195	14,984,007	6,923,448	17,197,265	1,567,698	53,845,232	21,967,335	1,616,475,581
40	2010 1 Qtr	73,031,336	14,967,023	6,929,904	17,343,678	1,581,045	54,106,614	21,564,028	1,638,039,609
41	2010 2 Qtr	73,455,139	14,949,790	6,929,904	17,493,267	1,594,681	54,367,190	21,167,318	1,659,206,927
42	2010 3 Qtr	73,881,619	14,932,304	6,929,904	17,643,851	1,608,409	54,629,360	20,778,035	1,679,984,961
43	2010 4 Qtr	74,310,796	14,914,561	6,929,904	17,795,437	1,622,227	54,893,133	20,396,037	1,700,380,998
44	2011 1 Qtr	74,770,784	14,896,558	6,923,448	17,959,750	1,637,206	55,173,828	20,026,742	1,720,407,740
45	2011 2 Qtr	75,233,824	14,878,291	6,923,448	18,122,999	1,652,088	55,458,737	19,665,119	1,740,072,859
46	2011 3 Qtr	75,699,937	14,859,755	6,923,448	18,287,381	1,667,073	55,745,483	19,310,152	1,759,383,011
47	2011 4 Qtr	76,169,145	14,840,948	6,923,448	18,452,906	1,682,162	56,034,078	18,961,717	1,778,344,728
48	2012 1 Qtr	76,623,498	14,821,865	6,929,904	18,611,295	1,696,600	56,315,603	18,616,738	1,796,961,466
49	2012 2 Qtr	77,080,775	14,802,502	6,929,904	18,772,961	1,711,338	56,596,476	18,277,368	1,815,238,834
50	2012 3 Qtr	77,540,993	14,782,854	6,929,904	18,935,721	1,726,175	56,879,097	17,944,294	1,833,183,127
51	2012 4 Qtr	78,004,174	14,762,919	6,929,904	19,099,584	1,741,113	57,163,478	17,617,397	1,850,800,524
52	2013 1 Qtr	78,495,950	14,742,690	6,923,448	19,275,434	1,757,143	57,463,372	17,300,698	1,868,101,222
53	2013 2 Qtr	78,991,013	14,722,165	6,923,448	19,450,310	1,773,085	57,767,618	16,990,509	1,885,091,730
54	2013 3 Qtr	79,489,387	14,701,339	6,923,448	19,626,412	1,789,138	58,073,837	16,685,985	1,901,777,716
55	2013 4 Qtr	79,991,095	14,680,207	6,923,448	19,803,748	1,805,304	58,382,043	16,387,022	1,918,164,738
56	2014 1 Qtr	80,496,160	14,658,765	6,929,904	19,980,138	1,821,384	58,694,639	16,094,171	1,934,258,908
57	2014 2 Qtr	81,004,606	14,637,009	6,929,904	20,159,971	1,837,777	59,006,858	15,806,003	1,950,064,912
58	2014 3 Qtr	81,516,455	14,614,933	6,929,904	20,341,067	1,854,286	59,321,103	15,523,091	1,965,588,003
59	2014 4 Qtr	82,031,733	14,592,533	6,929,904	20,523,435	1,870,911	59,637,387	15,245,337	1,980,833,340
60	2015 1 Qtr	82,550,462	14,569,805	4,541,163	21,517,294	1,961,511	59,071,657	14,751,867	1,995,585,206

TABLE I: TNRR DISCOUNTED CASH FLOW
(Continued)

Quarterly Levelized Capital Carrying Charge	Quarter (2)	Period (1)	Requirement 7/ (3)	Interest on Investment Financed With Debt 8/ (4)	Tax Depreciation 9/ (5)	Actual Federal Tax Payments 10/ (6)	Actual State Tax Payments 11/ (7)	Cash Flow 12/ (8)	Present Value Cash Flow 13/ (9)	Cumulative Present Value 14/ (10)
	2015 2 Qtr	61	\$83,072,667	14,546,743	\$4,541,163	\$21,702,237	\$1,978,370	\$59,392,060	\$14,489,241	\$2,010,074,447
	2015 3 Qtr	62	83,598,372	14,523,342	4,541,163	21,888,482	1,995,348	59,714,542	14,231,372	2,024,305,819
	2015 4 Qtr	63	84,127,601	14,499,599	4,541,163	22,076,038	2,012,445	60,039,117	13,978,172	2,038,283,991
	2016 1 Qtr	64	84,660,379	14,475,506	3,114,374	22,748,852	2,073,779	59,837,748	13,609,455	2,051,893,446
	2016 2 Qtr	65	85,196,730	14,451,061	3,114,374	22,939,062	2,091,118	60,166,550	13,368,110	2,065,261,555
	2016 3 Qtr	66	85,736,680	14,426,256	3,114,374	23,130,614	2,108,580	60,497,486	13,131,116	2,078,392,672
	2016 4 Qtr	67	86,280,254	14,401,088	3,114,374	23,323,519	2,126,165	60,830,569	12,898,393	2,091,291,065
	2017 1 Qtr	68	86,827,476	14,375,550	3,114,374	23,517,787	2,143,875	61,165,815	12,669,863	2,103,960,928
	2017 2 Qtr	69	87,378,373	14,349,638	3,114,374	23,713,428	2,161,709	61,503,236	12,445,448	2,116,406,375
	2017 3 Qtr	70	87,932,970	14,323,345	3,114,374	23,910,453	2,179,670	61,842,847	12,225,073	2,128,631,448
	2017 4 Qtr	71	88,491,293	14,296,667	3,114,374	24,108,873	2,197,758	62,184,662	12,008,663	2,140,640,111
	2018 1 Qtr	72	89,053,367	14,269,597	3,114,374	24,308,698	2,215,974	62,528,696	11,796,147	2,152,436,258
	2018 2 Qtr	73	89,619,220	14,242,130	3,114,374	24,509,939	2,234,319	62,874,962	11,587,452	2,164,023,710
	2018 3 Qtr	74	90,188,877	14,214,259	3,114,374	24,712,607	2,252,794	63,223,475	11,382,509	2,175,406,219
	2018 4 Qtr	75	90,762,365	14,185,980	3,114,374	24,916,713	2,271,401	63,574,251	11,181,249	2,186,587,468
	2019 1 Qtr	76	91,339,710	14,157,286	3,114,374	25,122,269	2,290,139	63,927,302	10,983,603	2,197,571,071
	2019 2 Qtr	77	91,920,940	14,128,171	3,114,374	25,329,285	2,309,010	64,282,645	10,789,507	2,208,360,579
	2019 3 Qtr	78	92,506,082	14,098,629	3,114,374	25,537,772	2,328,016	64,640,294	10,598,896	2,218,959,474
	2019 4 Qtr	79	93,095,164	14,068,653	3,114,374	25,747,743	2,347,157	65,000,264	10,411,704	2,229,371,179
	2020 1 Qtr	80	93,688,211	14,038,237	3,114,374	25,959,208	2,366,434	65,362,569	10,227,871	2,239,599,050
	2020 2 Qtr	81	94,285,254	14,007,375	3,114,374	26,172,180	2,385,849	65,727,225	10,047,334	2,249,646,384
	2020 3 Qtr	82	94,886,318	13,976,060	3,114,374	26,386,669	2,405,401	66,094,248	9,870,033	2,259,516,417
	2020 4 Qtr	83	95,491,433	13,944,285	3,114,374	26,602,688	2,425,094	66,463,652	9,695,910	2,269,212,327
	Future		4,986,792,125	1,214,864,091	361,267,419	1,156,821,773	105,455,549	3,724,514,803	543,342,998	2,782,942,048

1/ From Table C, Column (10).

2/ From Table D, Column (8).

3/ Line 1 + Line 2.

4/ Table F Column (6).

5/ Line 3 + Line 4.

6/ Route mile weighted average state tax rates for Wyoming, South Dakota, Nebraska, Colorado, Oklahoma and Texas.

7/ Quarterly carrying costs needed to recover the total investment over 83 quarters after consideration of the applicable interest payments, tax depreciation and tax liability. The Future value is an estimate of a perpetual income stream for the TNRR and is calculated by taking the Period 83, Column (3) value and dividing it by the TNRR's estimated quarterly Real Cost of Capital.

8/ Value from Table E.

9/ Value from Table G, Page 12, Column (14) divided by 4 quarters.

10/ Table J, Part 1 Pages 20, 21 of 28.

11/ Table J, Part 2 Pages 22, 23 of 28.

12/ (Column (3) - Column (6) - Column (7)).

13/ (Column (8) discounted by the fourth root of the annual Cost of Capital adjusted to midquarter dollars from Table A.

14/ Cumulative total of Column (9).

TABLE J - PART 1: COMPUTATION OF FEDERAL TAX LIABILITY - TAXABLE INCOME

Time Period	Taxable Income B/4 NOL's	Net Operating Losses Generated 2/	NOL's Generated Plus Carryforward 3/	Carryforward Utilized 4/	Carryforward Remaining 5/	Carryback Available 6/	Carryback Utilized 7/	Carryback Remaining 8/	Annual Taxable Income 9/ (10)	Annual Tax Liability 10/ (11)
1998	(\$1,366,220)	(\$1,366,220)	(\$1,366,220)	\$0	(\$1,366,220)	(\$1,366,220)	\$0	(\$1,366,220)	\$0	\$0
1999	(26,580,756)	(26,580,756)	(27,946,977)	0	(27,946,977)	(27,946,977)	0	(27,946,977)	0	0
2000	(34,978,161)	(34,978,161)	(62,925,138)	0	(62,925,138)	(62,925,138)	0	(62,925,138)	0	0
2000 2 Qtr	(11,843,182)	(11,843,182)	(74,768,319)	0	(74,768,319)	(74,768,319)	0	(74,768,319)	0	0
2000 3 Qtr	(86,723,024)	(86,723,024)	(161,491,343)	0	(161,491,343)	(161,491,343)	0	(161,491,343)	0	0
2000 4 Qtr	(86,631,899)	(86,631,899)	(248,123,042)	0	(248,123,042)	(248,123,042)	0	(248,123,042)	0	0
2001 1 Qtr	(44,453,319)	(44,453,319)	(292,576,361)	0	(292,576,361)	(292,576,361)	0	(292,576,361)	0	0
2001 2 Qtr	(43,774,210)	(43,774,210)	(336,350,571)	0	(336,350,571)	(336,350,571)	0	(336,350,571)	0	0
2001 3 Qtr	(43,376,526)	(43,376,526)	(379,727,097)	0	(379,727,097)	(379,727,097)	0	(379,727,097)	0	0
2001 4 Qtr	(43,341,815)	(43,341,815)	(423,068,912)	0	(423,068,912)	(423,068,912)	0	(423,068,912)	0	0
2002 1 Qtr	(23,836,329)	(23,836,329)	(446,905,241)	0	(446,905,241)	(446,905,241)	0	(446,905,241)	0	0
2002 2 Qtr	(23,919,504)	(23,919,504)	(470,824,745)	0	(470,824,745)	(470,824,745)	0	(470,824,745)	0	0
2002 3 Qtr	(24,230,151)	(24,230,151)	(495,054,895)	0	(495,054,895)	(495,054,895)	0	(495,054,895)	0	0
2002 4 Qtr	(25,025,562)	(25,025,562)	(520,080,457)	0	(520,080,457)	(520,080,457)	0	(520,080,457)	0	0
2003 1 Qtr	(8,624,934)	(8,624,934)	(528,705,391)	0	(528,705,391)	(528,705,391)	0	(528,705,391)	0	0
2003 2 Qtr	(6,248,320)	(6,248,320)	(534,953,711)	0	(534,953,711)	(534,953,711)	0	(534,953,711)	0	0
2003 3 Qtr	(6,001,755)	(6,001,755)	(540,955,467)	0	(540,955,467)	(540,955,467)	0	(540,955,467)	0	0
2003 4 Qtr	(5,638,390)	(5,638,390)	(546,593,857)	0	(546,593,857)	(546,593,857)	0	(546,593,857)	0	0
2004 1 Qtr	5,267,708	0	(546,593,857)	5,267,708	(541,326,149)	(541,326,149)	0	(541,326,149)	0	0
2004 2 Qtr	5,229,758	0	(541,326,149)	5,229,758	(536,096,391)	(536,096,391)	0	(536,096,391)	0	0
2004 3 Qtr	5,947,382	0	(530,149,009)	5,947,382	(530,149,009)	(530,149,009)	0	(530,149,009)	0	0
2004 4 Qtr	6,554,775	0	(523,594,235)	6,554,775	(523,594,235)	(523,594,235)	0	(523,594,235)	0	0
2005 1 Qtr	14,084,277	0	(523,594,235)	14,084,277	(509,509,958)	(509,509,958)	0	(509,509,958)	0	0
2005 2 Qtr	14,151,520	0	(509,509,958)	14,151,520	(495,358,438)	(495,358,438)	0	(495,358,438)	0	0
2005 3 Qtr	14,494,160	0	(495,358,438)	14,494,160	(480,864,278)	(480,864,278)	0	(480,864,278)	0	0
2005 4 Qtr	14,643,984	0	(480,864,278)	14,643,984	(466,220,294)	(466,220,294)	0	(466,220,294)	0	0
2006 1 Qtr	15,213,322	0	(466,220,294)	15,213,322	(451,006,972)	(451,006,972)	0	(451,006,972)	0	0
2006 2 Qtr	15,630,651	0	(435,376,320)	15,630,651	(435,376,320)	(435,376,320)	0	(435,376,320)	0	0
2006 3 Qtr	16,050,939	0	(419,325,382)	16,050,939	(419,325,382)	(419,325,382)	0	(419,325,382)	0	0
2006 4 Qtr	16,474,207	0	(419,325,382)	16,474,207	(402,851,174)	(402,851,174)	0	(402,851,174)	0	0
2007 1 Qtr	35,044,223	0	(402,851,174)	35,044,223	(367,806,951)	(367,806,951)	0	(367,806,951)	0	0
2007 2 Qtr	35,464,587	0	(367,806,951)	35,464,587	(332,342,365)	(332,342,365)	0	(332,342,365)	0	0
2007 3 Qtr	35,887,744	0	(332,342,365)	35,887,744	(296,454,621)	(296,454,621)	0	(296,454,621)	0	0
2007 4 Qtr	36,313,714	0	(296,454,621)	36,313,714	(260,140,907)	(260,140,907)	0	(260,140,907)	0	0
2008 1 Qtr	47,679,457	0	(260,140,907)	47,679,457	(212,461,450)	(212,461,450)	0	(212,461,450)	0	0
2008 2 Qtr	48,094,548	0	(212,461,450)	48,094,548	(164,366,902)	(164,366,902)	0	(164,366,902)	0	0
2008 3 Qtr	48,512,324	0	(164,366,902)	48,512,324	(115,854,578)	(115,854,578)	0	(115,854,578)	0	0
2008 4 Qtr	48,932,801	0	(115,854,578)	48,932,801	(66,921,777)	(66,921,777)	0	(66,921,777)	0	0
2009 1 Qtr	49,375,657	0	(66,921,777)	49,375,657	(17,546,120)	(17,546,120)	0	(17,546,120)	0	0
2009 2 Qtr	48,817,288	0	(17,546,120)	17,546,120	0	0	0	0	31,271,168	10,944,909
2009 3 Qtr	48,703,449	0	0	0	0	0	0	0	48,703,449	17,046,207
2009 4 Qtr	49,135,042	0	0	0	0	0	0	0	49,135,042	17,197,265
2010 1 Qtr	49,553,365	0	0	0	0	0	0	0	49,553,365	17,343,678
2010 2 Qtr	49,980,764	0	0	0	0	0	0	0	49,980,764	17,493,267
2010 3 Qtr	50,411,004	0	0	0	0	0	0	0	50,411,004	17,643,851

TABLE J - PART 1: COMPUTATION OF FEDERAL TAX LIABILITY - TAXABLE INCOME
(Continued)

Time Period	Taxable Income B/4 NOL's (1)	Net Operating Losses Generated 2/ (3)	NOL's Generated Plus Carryforward 3/ (4)	Carryforward Utilized 4/ (5)	Carryforward Remaining 5/ (6)	Carryback Available 6/ (7)	Carryback Utilized 7/ (8)	Carryback Remaining 8/ (9)	Annual Taxable Income 9/ (10)	Annual Tax Liability 10/ (11)
2010 4 Qtr	50,844,105	0	0	0	0	0	0	0	50,844,105	17,795,437
2011 1 Qtr	51,313,572	0	0	0	0	0	0	0	51,313,572	17,959,750
2011 2 Qtr	51,779,998	0	0	0	0	0	0	0	51,779,998	18,122,999
2011 3 Qtr	52,249,661	0	0	0	0	0	0	0	52,249,661	18,287,381
2011 4 Qtr	52,722,588	0	0	0	0	0	0	0	52,722,588	18,452,906
2012 1 Qtr	53,175,129	0	0	0	0	0	0	0	53,175,129	18,611,295
2012 2 Qtr	53,637,031	0	0	0	0	0	0	0	53,637,031	18,772,961
2012 3 Qtr	54,102,060	0	0	0	0	0	0	0	54,102,060	18,935,721
2012 4 Qtr	54,570,239	0	0	0	0	0	0	0	54,570,239	19,099,584
2013 1 Qtr	55,072,668	0	0	0	0	0	0	0	55,072,668	19,275,434
2013 2 Qtr	55,572,315	0	0	0	0	0	0	0	55,572,315	19,450,310
2013 3 Qtr	56,075,462	0	0	0	0	0	0	0	56,075,462	19,626,412
2013 4 Qtr	56,582,136	0	0	0	0	0	0	0	56,582,136	19,803,748
2014 1 Qtr	57,086,107	0	0	0	0	0	0	0	57,086,107	19,980,138
2014 2 Qtr	57,599,916	0	0	0	0	0	0	0	57,599,916	20,159,971
2014 3 Qtr	58,117,333	0	0	0	0	0	0	0	58,117,333	20,341,067
2014 4 Qtr	58,638,386	0	0	0	0	0	0	0	58,638,386	20,523,435
2015 1 Qtr	61,477,984	0	0	0	0	0	0	0	61,477,984	21,517,294
2015 2 Qtr	62,006,392	0	0	0	0	0	0	0	62,006,392	21,702,237
2015 3 Qtr	62,538,519	0	0	0	0	0	0	0	62,538,519	21,888,482
2015 4 Qtr	63,074,394	0	0	0	0	0	0	0	63,074,394	22,076,038
2016 1 Qtr	64,996,719	0	0	0	0	0	0	0	64,996,719	22,748,852
2016 2 Qtr	65,540,177	0	0	0	0	0	0	0	65,540,177	22,939,062
2016 3 Qtr	66,087,469	0	0	0	0	0	0	0	66,087,469	23,130,614
2016 4 Qtr	66,638,626	0	0	0	0	0	0	0	66,638,626	23,323,519
2017 1 Qtr	67,193,677	0	0	0	0	0	0	0	67,193,677	23,517,787
2017 2 Qtr	67,752,652	0	0	0	0	0	0	0	67,752,652	23,713,428
2017 3 Qtr	68,315,580	0	0	0	0	0	0	0	68,315,580	23,910,453
2017 4 Qtr	68,882,494	0	0	0	0	0	0	0	68,882,494	24,108,873
2018 1 Qtr	69,453,422	0	0	0	0	0	0	0	69,453,422	24,308,698
2018 2 Qtr	70,028,397	0	0	0	0	0	0	0	70,028,397	24,509,939
2018 3 Qtr	70,607,449	0	0	0	0	0	0	0	70,607,449	24,712,607
2018 4 Qtr	71,190,609	0	0	0	0	0	0	0	71,190,609	24,916,713
2019 1 Qtr	71,777,911	0	0	0	0	0	0	0	71,777,911	25,122,269
2019 2 Qtr	72,369,385	0	0	0	0	0	0	0	72,369,385	25,329,285
2019 3 Qtr	72,965,063	0	0	0	0	0	0	0	72,965,063	25,537,772
2019 4 Qtr	73,564,980	0	0	0	0	0	0	0	73,564,980	25,747,743
2020 1 Qtr	74,169,166	0	0	0	0	0	0	0	74,169,166	25,959,208
2020 2 Qtr	74,777,656	0	0	0	0	0	0	0	74,777,656	26,172,180
2020 3 Qtr	75,390,483	0	0	0	0	0	0	0	75,390,483	26,386,669
2020 4 Qtr	76,007,680	0	0	0	0	0	0	0	76,007,680	26,602,668
Future	3,305,205,067	0	0	0	0	0	0	0	3,305,205,067	1,156,821,773

1/ Table I, Column (3) - Table E, Columns (6),(12) & (18) - Table G, Column (14) / 4 - Table J Part 2, Column (11).

Values for 1998-2000 from Table D, Sum of Column (10).

2/ Column (2) if less than zero, otherwise zero.

3/ Cumulative total of Column (2).

4/ If Column (2) is greater than zero, and (Column (2) + Column (4) is less than zero, then Column (2), otherwise Column (4).

5/ Column (4) + Column (5) + Column (8).

6/ Previous period Column (9) + current period Column (3) - current period Column (5).

7/ If previous Column (10) is greater than zero, and previous Column (10) is less than current Column (7), then previous Column (10), otherwise zero.

8/ Column (7) + Column (8).

9/ If Column (2) is greater than zero, then Column (2) - Column (5) - Column (8), otherwise zero.

10/ Column (10) times applicable Federal Statutory Tax Rate.

Time Period	Taxable Income 8/4 NOL's T&NRR 1/	Net Operating Losses Generated 2/	NOL's Generated Plus Carryforward 3/	Carryforward Utilized 4/	Carryforward Remaining 5/	Carryback Available 6/	Carryback Utilized 7/	Carryback Remaining 8/	Annual Taxable Income 9/ (10)	Annual Tax Liability 10/ (11)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1998	(\$1,366,220)	(\$1,366,220)	(\$1,366,220)	\$0	(\$1,366,220)	(\$1,366,220)	\$0	(\$1,366,220)	\$0	\$0
1999	(26,580,756)	(26,580,756)	(27,946,977)	0	(27,946,977)	(27,946,977)	0	(27,946,977)	0	0
2000	(34,978,161)	(34,978,161)	(62,925,138)	0	(62,925,138)	(62,925,138)	0	(62,925,138)	0	0
2000 2 Qtr	(11,843,182)	(11,843,182)	(74,768,319)	0	(74,768,319)	(74,768,319)	0	(74,768,319)	0	0
2000 3 Qtr	(86,723,024)	(86,723,024)	(161,491,343)	0	(161,491,343)	(161,491,343)	0	(161,491,343)	0	0
2000 4 Qtr	(86,631,699)	(86,631,699)	(248,123,042)	0	(248,123,042)	(248,123,042)	0	(248,123,042)	0	0
2001 1 Qtr	(44,453,319)	(44,453,319)	(292,576,361)	0	(292,576,361)	(292,576,361)	0	(292,576,361)	0	0
2001 2 Qtr	(43,774,210)	(43,774,210)	(336,350,571)	0	(336,350,571)	(336,350,571)	0	(336,350,571)	0	0
2001 3 Qtr	(43,376,526)	(43,376,526)	(379,727,097)	0	(379,727,097)	(379,727,097)	0	(379,727,097)	0	0
2001 4 Qtr	(43,341,815)	(43,341,815)	(423,068,912)	0	(423,068,912)	(423,068,912)	0	(423,068,912)	0	0
2002 1 Qtr	(23,836,329)	(23,836,329)	(446,905,241)	0	(446,905,241)	(446,905,241)	0	(446,905,241)	0	0
2002 2 Qtr	(23,919,504)	(23,919,504)	(470,824,745)	0	(470,824,745)	(470,824,745)	0	(470,824,745)	0	0
2002 3 Qtr	(24,230,151)	(24,230,151)	(495,054,895)	0	(495,054,895)	(495,054,895)	0	(495,054,895)	0	0
2002 4 Qtr	(25,025,562)	(25,025,562)	(520,080,457)	0	(520,080,457)	(520,080,457)	0	(520,080,457)	0	0
2003 1 Qtr	(8,624,934)	(8,624,934)	(528,705,391)	0	(528,705,391)	(528,705,391)	0	(528,705,391)	0	0
2003 2 Qtr	(6,248,320)	(6,248,320)	(534,953,711)	0	(534,953,711)	(534,953,711)	0	(534,953,711)	0	0
2003 3 Qtr	(6,001,755)	(6,001,755)	(540,955,467)	0	(540,955,467)	(540,955,467)	0	(540,955,467)	0	0
2003 4 Qtr	(5,638,390)	(5,638,390)	(546,593,857)	0	(546,593,857)	(546,593,857)	0	(546,593,857)	0	0
2004 1 Qtr	5,267,708	0	(546,593,857)	5,267,708	(541,326,149)	(541,326,149)	0	(541,326,149)	0	0
2004 2 Qtr	5,229,758	0	(541,326,149)	5,229,758	(536,096,391)	(536,096,391)	0	(536,096,391)	0	0
2004 3 Qtr	5,947,382	0	(536,096,391)	5,947,382	(530,149,009)	(530,149,009)	0	(530,149,009)	0	0
2004 4 Qtr	6,554,775	0	(530,149,009)	6,554,775	(523,594,235)	(523,594,235)	0	(523,594,235)	0	0
2005 1 Qtr	14,084,277	0	(523,594,235)	14,084,277	(509,509,958)	(509,509,958)	0	(509,509,958)	0	0
2005 2 Qtr	14,151,520	0	(509,509,958)	14,151,520	(495,358,438)	(495,358,438)	0	(495,358,438)	0	0
2005 3 Qtr	14,494,160	0	(495,358,438)	14,494,160	(480,864,278)	(480,864,278)	0	(480,864,278)	0	0
2005 4 Qtr	14,643,984	0	(480,864,278)	14,643,984	(466,220,294)	(466,220,294)	0	(466,220,294)	0	0
2006 1 Qtr	15,213,322	0	(466,220,294)	15,213,322	(451,006,972)	(451,006,972)	0	(451,006,972)	0	0
2006 2 Qtr	15,630,651	0	(451,006,972)	15,630,651	(435,376,320)	(435,376,320)	0	(435,376,320)	0	0
2006 3 Qtr	16,050,939	0	(435,376,320)	16,050,939	(419,325,382)	(419,325,382)	0	(419,325,382)	0	0
2006 4 Qtr	16,474,207	0	(419,325,382)	16,474,207	(402,851,174)	(402,851,174)	0	(402,851,174)	0	0
2007 1 Qtr	35,044,223	0	(402,851,174)	35,044,223	(367,806,951)	(367,806,951)	0	(367,806,951)	0	0
2007 2 Qtr	35,464,587	0	(367,806,951)	35,464,587	(332,342,365)	(332,342,365)	0	(332,342,365)	0	0
2007 3 Qtr	35,887,744	0	(332,342,365)	35,887,744	(296,454,621)	(296,454,621)	0	(296,454,621)	0	0
2007 4 Qtr	36,313,714	0	(296,454,621)	36,313,714	(260,140,907)	(260,140,907)	0	(260,140,907)	0	0
2008 1 Qtr	47,679,457	0	(260,140,907)	47,679,457	(212,461,450)	(212,461,450)	0	(212,461,450)	0	0
2008 2 Qtr	48,094,548	0	(212,461,450)	48,094,548	(164,366,902)	(164,366,902)	0	(164,366,902)	0	0
2008 3 Qtr	48,512,324	0	(164,366,902)	48,512,324	(115,854,578)	(115,854,578)	0	(115,854,578)	0	0
2008 4 Qtr	48,932,801	0	(115,854,578)	48,932,801	(66,921,777)	(66,921,777)	0	(66,921,777)	0	0
2009 1 Qtr	49,375,657	0	(66,921,777)	49,375,657	(17,546,120)	(17,546,120)	0	(17,546,120)	0	0
2009 2 Qtr	49,815,023	0	(17,546,120)	17,546,120	0	0	0	0	32,268,903	997,735
2009 3 Qtr	50,257,376	0	0	0	0	0	0	0	50,257,376	1,553,927
2009 4 Qtr	50,702,740	0	0	0	0	0	0	0	50,702,740	1,567,698
2010 1 Qtr	51,134,410	0	0	0	0	0	0	0	51,134,410	1,581,045
2010 2 Qtr	51,575,445	0	0	0	0	0	0	0	51,575,445	1,594,681
2010 3 Qtr	52,019,412	0	0	0	0	0	0	0	52,019,412	1,608,409

TABLE J - PART 2: COMPUTATION OF STATE TAX LIABILITY - TAXABLE INCOME
(Continued)

Time Period	Taxable Income B/4 NOL's I&NRR 1/	Net Operating Losses Generated 2/	NOL's Generated Plus Carryforward 3/	Carryforward Utilized 4/	Carryforward Remaining 5/	Carryback Available 6/	Carryback Utilized 7/	Carryback Remaining 8/	Annual Taxable Income 9/	Annual Tax Liability 10/
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
2010 4 Qtr	52,466,332	0	0	0	0	0	0	0	52,466,332	1,622,227
2011 1 Qtr	52,950,778	0	0	0	0	0	0	0	52,950,778	1,637,206
2011 2 Qtr	53,432,085	0	0	0	0	0	0	0	53,432,085	1,652,088
2011 3 Qtr	53,916,734	0	0	0	0	0	0	0	53,916,734	1,667,073
2011 4 Qtr	54,404,749	0	0	0	0	0	0	0	54,404,749	1,682,162
2012 1 Qtr	54,871,730	0	0	0	0	0	0	0	54,871,730	1,696,600
2012 2 Qtr	55,348,369	0	0	0	0	0	0	0	55,348,369	1,711,338
2012 3 Qtr	55,828,235	0	0	0	0	0	0	0	55,828,235	1,726,175
2012 4 Qtr	56,311,352	0	0	0	0	0	0	0	56,311,352	1,741,113
2013 1 Qtr	56,829,812	0	0	0	0	0	0	0	56,829,812	1,757,143
2013 2 Qtr	57,345,400	0	0	0	0	0	0	0	57,345,400	1,773,085
2013 3 Qtr	57,864,600	0	0	0	0	0	0	0	57,864,600	1,789,138
2013 4 Qtr	58,387,440	0	0	0	0	0	0	0	58,387,440	1,805,304
2014 1 Qtr	58,907,491	0	0	0	0	0	0	0	58,907,491	1,821,384
2014 2 Qtr	59,437,893	0	0	0	0	0	0	0	59,437,893	1,837,777
2014 3 Qtr	59,971,619	0	0	0	0	0	0	0	59,971,619	1,854,286
2014 4 Qtr	60,509,296	0	0	0	0	0	0	0	60,509,296	1,870,911
2015 1 Qtr	63,439,495	0	0	0	0	0	0	0	63,439,495	1,961,511
2015 2 Qtr	63,984,762	0	0	0	0	0	0	0	63,984,762	1,978,370
2015 3 Qtr	64,533,867	0	0	0	0	0	0	0	64,533,867	1,995,348
2015 4 Qtr	65,086,839	0	0	0	0	0	0	0	65,086,839	2,012,445
2016 1 Qtr	67,070,498	0	0	0	0	0	0	0	67,070,498	2,073,779
2016 2 Qtr	67,631,295	0	0	0	0	0	0	0	67,631,295	2,091,118
2016 3 Qtr	68,196,050	0	0	0	0	0	0	0	68,196,050	2,108,580
2016 4 Qtr	68,764,792	0	0	0	0	0	0	0	68,764,792	2,126,165
2017 1 Qtr	69,337,552	0	0	0	0	0	0	0	69,337,552	2,143,875
2017 2 Qtr	69,914,361	0	0	0	0	0	0	0	69,914,361	2,161,709
2017 3 Qtr	70,495,251	0	0	0	0	0	0	0	70,495,251	2,179,670
2017 4 Qtr	71,080,252	0	0	0	0	0	0	0	71,080,252	2,197,758
2018 1 Qtr	71,669,396	0	0	0	0	0	0	0	71,669,396	2,215,974
2018 2 Qtr	72,262,716	0	0	0	0	0	0	0	72,262,716	2,234,319
2018 3 Qtr	72,860,243	0	0	0	0	0	0	0	72,860,243	2,252,794
2018 4 Qtr	73,462,010	0	0	0	0	0	0	0	73,462,010	2,271,401
2019 1 Qtr	74,068,050	0	0	0	0	0	0	0	74,068,050	2,290,139
2019 2 Qtr	74,678,395	0	0	0	0	0	0	0	74,678,395	2,309,010
2019 3 Qtr	75,293,080	0	0	0	0	0	0	0	75,293,080	2,328,016
2019 4 Qtr	75,912,137	0	0	0	0	0	0	0	75,912,137	2,347,157
2020 1 Qtr	76,535,600	0	0	0	0	0	0	0	76,535,600	2,366,434
2020 2 Qtr	77,163,505	0	0	0	0	0	0	0	77,163,505	2,385,849
2020 3 Qtr	77,795,884	0	0	0	0	0	0	0	77,795,884	2,405,401
2020 4 Qtr	78,432,774	0	0	0	0	0	0	0	78,432,774	2,425,094
Future	3,410,660,616	0	0	0	0	0	0	0	3,410,660,616	105,455,549

1/ Table I, Column (3) - Table E, Columns (6), (12) & (18) - Table G, Column (14) / 4.
Values for 1998-2000 from Table D, Sum of Column (10).

2/ Column (2) if less than zero, otherwise zero.

3/ Cumulative total of Column (2).

4/ If Column (2) is greater than zero, and (Column (2) + Column (4) is less than zero, then Column (2), otherwise Column (4).

5/ Column (4) + Column (5) + Column (8).

6/ Previous period Column (9) + current period Column (3) - current period Column (5).

7/ If previous Column (10) is greater than zero, and previous Column (10) is less than current Column (7), then previous Column (10), otherwise zero.

8/ Column (7) + Column (8).

9/ If Column (7) is greater than zero, then Column (2) - Column (5) - Column (8), otherwise zero.

10/ Column (10) times applicable route mile weighted State Statutory Tax Rates.

TABLE K. INRR OPERATING EXPENSES

Item (1)	2000 (2)	2001 (3)	2002 (4)	2003 (5)	2004 (7)	2005 (8)	2006 (9)	2007 (10)	2008 (11)	2009 (12)
1. Train & Engine Personnel	\$41,831,156	\$44,285,992	\$43,557,775	\$44,710,396	\$47,429,310	\$46,617,978	\$47,066,748	\$47,778,197	\$48,346,746	\$48,943,463
2. Locomotive Lease Expense	\$30,094,047	\$31,860,098	\$31,336,206	\$32,165,421	\$34,121,455	\$33,537,768	\$33,860,621	\$34,372,450	\$34,781,474	\$35,210,762
3. Locomotive Maintenance Expense	\$24,877,581	\$26,337,507	\$25,904,426	\$26,589,906	\$28,206,883	\$27,724,372	\$27,991,262	\$28,414,371	\$28,752,495	\$29,107,371
4. Locomotive Operating Expense	\$85,732,988	\$90,764,176	\$89,271,694	\$91,633,992	\$97,206,410	\$95,543,583	\$96,463,338	\$97,921,454	\$99,086,694	\$100,309,666
5. Railcar Lease Expense	\$9,715,218	\$10,285,349	\$10,116,222	\$10,383,916	\$11,015,380	\$10,826,949	\$10,931,175	\$11,096,408	\$11,228,453	\$11,367,039
6. Material & Supply Operating	\$1,151,124	\$1,151,124	\$1,151,124	\$1,151,124	\$1,151,124	\$1,151,124	\$1,151,124	\$1,151,124	\$1,151,124	\$1,151,124
7. Ad Valorem Tax	\$6,127,347	\$6,127,347	\$6,127,347	\$6,127,347	\$6,127,347	\$6,127,347	\$6,127,347	\$6,127,347	\$6,127,347	\$6,127,347
8. Joint Facility	\$4,130,606	\$4,130,606	\$4,130,606	\$4,130,606	\$4,130,606	\$4,130,606	\$4,130,606	\$4,130,606	\$4,130,606	\$4,130,606
9. Operating Managers	\$11,950,039	\$11,950,039	\$11,950,039	\$11,950,039	\$11,950,039	\$11,950,039	\$11,950,039	\$11,950,039	\$11,950,039	\$11,950,039
10. General & Administration	\$12,942,007	\$12,942,007	\$12,942,007	\$12,942,007	\$12,942,007	\$12,942,007	\$12,942,007	\$12,942,007	\$12,942,007	\$12,942,007
11. Loss and Damage	\$833,799	\$882,730	\$868,215	\$891,190	\$945,384	\$929,213	\$938,158	\$952,339	\$963,671	\$975,585
12. Insurance	7,558,478	7,891,376	7,792,623	7,948,929	8,317,638	8,207,614	8,268,471	8,364,950	8,442,051	8,522,971
13. Maintenance of Way	<u>27,886,966</u>	<u>27,886,966</u>	<u>27,886,966</u>	<u>27,886,966</u>	<u>27,886,966</u>	<u>27,886,966</u>	<u>27,886,966</u>	<u>27,886,966</u>	<u>27,886,966</u>	<u>27,886,966</u>
14. Total Operating Expenses	\$264,831,356	\$276,495,317	\$273,035,251	\$278,511,840	\$291,430,651	\$287,575,567	\$289,707,863	\$293,088,259	\$295,789,673	\$298,624,927
15. Expense Per Quarter	\$66,207,839	\$69,123,829	\$68,258,813	\$69,627,960	\$72,857,638	\$71,893,892	\$72,426,966	\$73,272,065	\$73,947,418	\$74,656,232

2.94%

TABLE K. TNRr OPERATING EXPENSES
(Continued)

Item (1)	2010 (2)	2011 (3)	2012 (4)	2013 (5)	2014 (7)	2015 (8)	2016 (9)	2017 (10)	2018 (11)	2019 (12)	2020 (13)
1. Train & Engine Personnel	\$50,061,119	\$50,610,531	\$50,945,975	\$51,178,452	\$51,399,772	\$51,586,925	\$51,840,909	\$52,145,384	\$52,324,568	\$52,554,093	\$52,804,176
2. Locomotive Lease Expense	\$36,014,823	\$36,410,080	\$36,651,403	\$36,818,652	\$36,977,873	\$37,112,514	\$37,295,234	\$37,514,279	\$37,643,187	\$37,808,311	\$37,988,225
3. Locomotive Maintenance Expense	\$29,772,057	\$30,098,801	\$30,298,294	\$30,436,551	\$30,568,173	\$30,679,476	\$30,830,524	\$31,011,599	\$31,118,163	\$31,254,665	\$31,403,392
4. Locomotive Operating Expense	\$102,600,304	\$103,726,325	\$104,413,817	\$104,890,280	\$105,343,874	\$105,727,445	\$106,247,986	\$106,872,007	\$107,239,245	\$107,709,657	\$108,222,201
5. Railcar Lease Expense	\$11,626,613	\$11,754,213	\$11,832,119	\$11,886,112	\$11,937,513	\$11,980,979	\$12,039,967	\$12,110,680	\$12,152,295	\$12,205,602	\$12,263,684
6. Material & Supply Operating	\$1,151,124	\$1,151,124	\$1,151,124	\$1,151,124	\$1,151,124	\$1,151,124	\$1,151,124	\$1,151,124	\$1,151,124	\$1,151,124	\$1,151,124
7. Ad Valorem Tax	\$6,127,347	\$6,127,347	\$6,127,347	\$6,127,347	\$6,127,347	\$6,127,347	\$6,127,347	\$6,127,347	\$6,127,347	\$6,127,347	\$6,127,347
8. Joint Facility	\$4,130,606	\$4,130,606	\$4,130,606	\$4,130,606	\$4,130,606	\$4,130,606	\$4,130,606	\$4,130,606	\$4,130,606	\$4,130,606	\$4,130,606
9. Operating Managers	\$11,950,039	\$11,950,039	\$11,950,039	\$11,950,039	\$11,950,039	\$11,950,039	\$11,950,039	\$11,950,039	\$11,950,039	\$11,950,039	\$11,950,039
10. General & Administration	\$12,942,007	\$12,942,007	\$12,942,007	\$12,942,007	\$12,942,007	\$12,942,007	\$12,942,007	\$12,942,007	\$12,942,007	\$12,942,007	\$12,942,007
11. Loss and Damage	\$997,843	\$1,008,794	\$1,015,480	\$1,020,114	\$1,024,526	\$1,028,256	\$1,033,319	\$1,039,387	\$1,042,959	\$1,047,534	\$1,052,519
12. Insurance	8,674,535	8,749,040	8,794,530	8,826,056	8,856,069	8,881,448	8,915,891	8,957,180	8,981,479	9,012,605	9,046,518
13. Maintenance of Way	27,886,966	27,886,966	27,886,966	27,886,966	27,886,966	27,886,966	27,886,966	27,886,966	27,886,966	27,886,966	27,886,966
14. Total Operating Expenses	\$303,935,384	\$306,545,874	\$308,139,708	\$309,244,307	\$310,295,888	\$311,185,133	\$312,391,919	\$313,838,606	\$314,689,985	\$315,780,557	\$316,968,805
15. Expense Per Quarter	\$75,983,846	\$76,636,469	\$77,034,927	\$77,311,077	\$77,573,972	\$77,796,283	\$78,097,980	\$78,459,651	\$78,672,496	\$78,945,139	\$79,242,201

TABLE K: TNR OPERATING EXPENSES, INDEXED
(Continued)

Period (1)	Quarter (2)	Rail Cost Adjustment Factor Index 1/ (3)	Operating Expense Indexed For Inflation 2/ (4)	Period (5)	Quarter (6)	Rail Cost Adjustment Factor Index 1/ (7)	Operating Expense Indexed For Inflation 2/ (8)	Period (9)	Quarter (10)	Rail Cost Adjustment Factor Index 1/ (11)	Operating Expense Indexed For Inflation 2/ (12)
NA	1999 3 Qtr	0.000	NA	27	2006 4 Qtr	0.527	73,970,951	56	2014 1 Qtr	0.586	88,097,573
NA	1999 4 Qtr	0.000	NA	28	2007 1 Qtr	0.537	76,254,067	57	2014 2 Qtr	0.585	87,947,236
NA	2000 1 Qtr	0.000	NA	29	2007 2 Qtr	0.536	76,112,067	58	2014 3 Qtr	0.583	87,646,561
1	June 16 - 30, 2000	0.516	\$10,913,380	30	2007 3 Qtr	0.535	75,970,067	59	2014 4 Qtr	0.582	87,496,224
2	2000 3 Qtr	0.514	65,951,219	31	2007 4 Qtr	0.533	75,686,067	60	2015 1 Qtr	0.595	89,706,954
3	2000 4 Qtr	0.517	66,336,149	32	2008 1 Qtr	0.544	77,960,069	61	2015 2 Qtr	0.593	89,405,418
4	2001 1 Qtr	0.526	70,463,438	33	2008 2 Qtr	0.542	77,673,451	62	2015 3 Qtr	0.592	89,254,650
5	2001 2 Qtr	0.519	69,525,712	34	2008 3 Qtr	0.541	77,530,142	63	2015 4 Qtr	0.590	88,953,115
6	2001 3 Qtr	0.519	69,525,712	35	2008 4 Qtr	0.539	77,243,524	64	2016 1 Qtr	0.603	91,265,662
7	2001 4 Qtr	0.516	69,123,829	36	2009 1 Qtr	0.550	79,575,441	65	2016 2 Qtr	0.601	90,962,957
8	2002 1 Qtr	0.513	67,861,959	37	2009 2 Qtr	0.549	79,430,758	66	2016 3 Qtr	0.600	90,811,604
9	2002 2 Qtr	0.503	66,539,114	38	2009 3 Qtr	0.547	79,141,393	67	2016 4 Qtr	0.598	90,508,899
10	2002 3 Qtr	0.500	66,142,260	39	2009 4 Qtr	0.545	78,852,028	68	2017 1 Qtr	0.611	92,904,742
11	2002 4 Qtr	0.519	68,655,666	40	2010 1 Qtr	0.556	81,874,067	69	2017 2 Qtr	0.610	92,752,689
12	2003 1 Qtr	0.514	69,358,084	41	2010 2 Qtr	0.555	81,726,811	70	2017 3 Qtr	0.608	92,448,581
13	2003 2 Qtr	0.522	70,437,588	42	2010 3 Qtr	0.553	81,432,300	71	2017 4 Qtr	0.606	92,144,474
14	2003 3 Qtr	0.523	70,572,525	43	2010 4 Qtr	0.552	81,285,045	72	2018 1 Qtr	0.620	94,528,968
15	2003 4 Qtr	0.520	70,167,712	44	2011 1 Qtr	0.564	83,765,442	73	2018 2 Qtr	0.618	94,224,036
16	2004 1 Qtr	0.519	73,281,229	45	2011 2 Qtr	0.562	83,468,402	74	2018 3 Qtr	0.616	93,919,104
17	2004 2 Qtr	0.517	72,998,835	46	2011 3 Qtr	0.561	83,319,882	75	2018 4 Qtr	0.615	93,766,638
18	2004 3 Qtr	0.522	73,704,820	47	2011 4 Qtr	0.559	83,022,841	76	2019 1 Qtr	0.629	96,233,513
19	2004 4 Qtr	0.527	74,410,804	48	2012 1 Qtr	0.571	85,246,014	77	2019 2 Qtr	0.627	95,927,524
20	2005 1 Qtr	0.526	73,287,184	49	2012 2 Qtr	0.569	84,947,429	78	2019 3 Qtr	0.625	95,621,535
21	2005 2 Qtr	0.525	73,147,855	50	2012 3 Qtr	0.567	84,648,844	79	2019 4 Qtr	0.623	95,315,546
22	2005 3 Qtr	0.526	73,267,184	51	2012 4 Qtr	0.566	84,499,552	80	2020 1 Qtr	0.637	97,824,190
23	2005 4 Qtr	0.529	73,705,172	52	2013 1 Qtr	0.578	86,600,392	81	2020 2 Qtr	0.636	97,670,620
24	2006 1 Qtr	0.534	74,953,488	53	2013 2 Qtr	0.577	86,450,565	82	2020 3 Qtr	0.634	97,363,480
25	2006 2 Qtr	0.531	74,532,401	54	2013 3 Qtr	0.575	86,150,909	83	2020 4 Qtr	0.632	97,056,339
26	2006 3 Qtr	0.529	74,251,676	55	2013 4 Qtr	0.573	85,851,254				

1/ 2Q00 equals 51.6, all other quarters equal Quarterly Inflation Indexes for the RCAF-EIA from Table B).

2/ (Quarterly expense from Table K, Pages 24 and 25, for the applicable time period x Column (3), Column (7) or Column (11) + 2Q00.

TABLE I: TIRR CALCULATED CASH FLOW

Quarterly Revenue Requirements to Cover Total Stand-Alone

Period (1)	Quarter (2)	Quarterly Capital Requirement Road Property (3)	Quarterly Operating Expense (4)	Annual Stand-Alone Requirement (5)	Quarterly Stand-Alone Revenues (6)	Annual Stand-Alone Revenues (7)	Overpayments Or Shortfalls In Revenues (8)	Reduction In Rates (9)	Rate Charged (10)	SAC Rate Based on Equalized % Reduction (11)	SAC Rate Based on Generalized % Reduction (12)
1	June 16-30, 2000	\$10,494,951	\$10,913,380	\$21,408,332	\$30,711,753		\$9,303,421	30.29%	\$15.33	\$10.69	\$10.59
2	2000 3 Qtr	64,407,958	65,951,219	130,359,177	188,385,418		58,006,241	30.79%	15.33	10.61	10.27
3	2000 4 Qtr	64,491,935	66,336,149	130,828,084	188,385,418	\$407,442,589	57,537,334	30.55%	15.33	10.65	10.27
4	2001 1 Qtr	65,502,960	70,463,438	135,966,398	191,828,194		55,861,796	29.12%	15.59	11.05	10.89
5	2001 2 Qtr	66,174,459	69,525,712	135,700,171	191,828,194		56,128,023	29.26%	15.59	11.03	10.89
6	2001 3 Qtr	66,564,397	69,525,712	136,090,109	191,828,194		56,738,085	29.06%	15.59	11.06	10.89
7	2001 4 Qtr	66,591,224	69,123,829	135,715,063	191,828,194	767,312,777	56,113,141	29.25%	15.59	11.03	10.89
8	2002 1 Qtr	61,966,169	67,861,959	129,828,128	193,050,377		63,222,249	32.75%	15.36	10.33	10.23
9	2002 2 Qtr	61,872,181	66,539,114	128,411,295	193,050,377		64,639,082	33.48%	15.36	10.22	9.50
10	2002 3 Qtr	61,550,564	66,142,260	127,692,824	193,050,377		65,357,553	33.86%	15.36	10.16	9.50
11	2002 4 Qtr	60,744,021	68,655,666	129,399,687	193,050,377	772,201,509	63,650,690	32.97%	15.36	10.30	10.23
12	2003 1 Qtr	60,866,833	69,358,084	130,224,917	196,024,194		65,799,277	33.57%	16.49	10.95	9.70
13	2003 2 Qtr	63,231,965	70,437,588	133,669,572	196,024,194		62,354,621	31.81%	16.49	11.24	9.70
14	2003 3 Qtr	63,466,921	70,572,525	134,039,446	196,024,194		61,984,748	31.62%	16.49	11.28	9.70
15	2003 4 Qtr	63,818,486	70,167,712	133,966,197	196,024,194	784,096,775	62,037,966	31.65%	16.49	11.27	9.70
16	2004 1 Qtr	64,049,708	73,281,229		210,209,209						
17	2004 2 Qtr	63,999,609	72,998,835		210,209,209						
18	2004 3 Qtr	64,704,906	73,704,820		210,209,209						
19	2004 4 Qtr	65,299,791	74,410,804	552,449,701	210,209,209	840,836,834	288,387,133	34.30%	\$18.83	\$12.37	\$9.68
20	2005 1 Qtr	65,538,714	73,287,184		207,669,080						
21	2005 2 Qtr	65,593,079	73,147,555		207,669,080						
22	2005 3 Qtr	65,922,652	73,287,184		207,669,080						
23	2005 4 Qtr	66,059,218	73,705,172	556,541,058	207,669,080	830,676,319	274,135,261	33.00%	\$18.83	\$12.62	\$9.91
24	2006 1 Qtr	66,460,158	74,953,488		212,758,120						
25	2006 2 Qtr	66,863,637	74,532,401		212,758,120						
26	2006 3 Qtr	67,270,274	74,251,676		212,758,120						
27	2006 4 Qtr	67,679,488	73,970,951	565,982,273	212,758,120	851,032,481	285,050,208	33.49%	\$18.83	\$12.52	\$9.98
28	2007 1 Qtr	68,082,819	76,254,067		219,654,487						
29	2007 2 Qtr	68,488,714	76,112,067		219,654,487						
30	2007 3 Qtr	68,697,189	75,970,067		219,654,487						
31	2007 4 Qtr	69,308,262	75,686,067	578,799,252	219,654,487	878,617,948	299,818,696	34.12%	\$18.83	\$12.40	\$9.57
32	2008 1 Qtr	69,705,574	77,960,069		229,031,630						
33	2008 2 Qtr	70,105,328	77,673,451		229,031,630						
34	2008 3 Qtr	70,507,540	77,530,142	591,637,855	229,031,630	916,126,519	324,488,664	35.42%	\$18.83	\$12.16	\$9.67
35	2008 4 Qtr	70,912,227	77,243,524		234,796,719						
36	2009 1 Qtr	71,332,604	79,575,441		234,796,719						
37	2009 2 Qtr	71,755,712	79,430,758		234,796,719						
38	2009 3 Qtr	72,181,569	79,141,393		234,796,719						
39	2009 4 Qtr	72,610,195	78,852,028	604,879,701	234,796,719	939,166,677	334,307,177	35.60%	\$18.83	\$12.13	\$9.78
40	2010 1 Qtr	73,031,336	81,874,067		242,477,518						

TABLE L: TNRR CALCULATED CASH FLOW
(Continued)

Period	Quarter	Quarterly Capital Requirement	Quarterly Operating Expense	Annual Stand-Alone Requirement	Quarterly Stand-Alone Revenues	Annual Stand-Alone Revenues	Overpayments Or Shortfalls In Revenues	Reduction In Rates	Rate Charged	SAC Rate Based on Equalized % Reduction	SAC Rate Generalized % Reduction
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
41	2010 2 Qtr	\$73,455,139	\$81,726,811		242,477,518						
42	2010 3 Qtr	73,881,619	81,432,300		242,477,518						
43	2010 4 Qtr	74,310,796	81,285,045	620,997,114	242,477,518	969,910,072	348,912,958	35.97%	\$18.83	\$12.06	\$9.93
44	2011 1 Qtr	74,770,784	83,765,442		247,633,349						
45	2011 2 Qtr	75,233,824	83,488,402		247,633,349						
46	2011 3 Qtr	75,699,937	83,319,882		247,633,349						
47	2011 4 Qtr	76,169,145	83,022,841	635,450,256	247,633,349	990,533,397	355,083,141	35.85%	\$18.83	\$12.08	\$10.02
48	2012 1 Qtr	76,623,498	85,246,014		252,340,385						
49	2012 2 Qtr	77,080,775	84,947,429		252,340,385						
50	2012 3 Qtr	77,540,993	84,648,844		252,340,385						
51	2012 4 Qtr	78,004,174	84,499,552	648,591,280	252,340,385	1,009,361,539	360,770,259	35.74%	\$18.83	\$12.10	\$10.14
52	2013 1 Qtr	78,496,950	86,600,392		257,003,734						
53	2013 2 Qtr	78,991,013	86,450,585		257,003,734						
54	2013 3 Qtr	79,489,387	86,150,909		257,003,734						
55	2013 4 Qtr	79,991,095	85,851,254	662,020,564	257,003,734	1,028,014,935	365,994,372	35.60%	\$18.83	\$12.13	\$10.28
56	2014 1 Qtr	80,496,160	88,097,573		261,445,052						
57	2014 2 Qtr	81,004,606	87,947,236		261,445,052						
58	2014 3 Qtr	81,516,465	87,646,581		261,445,052						
59	2014 4 Qtr	82,031,733	87,496,224	676,236,548	261,445,052	1,045,780,210	369,543,662	35.34%	\$18.83	\$12.18	\$10.96
60	2015 1 Qtr	82,550,462	89,706,954		265,957,887						
61	2015 2 Qtr	83,072,667	89,405,418		265,957,887						
62	2015 3 Qtr	83,596,372	89,254,650		265,957,887						
63	2015 4 Qtr	84,127,601	88,953,115	690,689,240	265,957,887	1,063,831,547	373,162,307	35.08%	\$18.83	\$12.22	\$11.11
64	2016 1 Qtr	84,660,379	91,265,662		269,666,149						
65	2016 2 Qtr	85,196,730	90,962,957		269,666,149						
66	2016 3 Qtr	85,736,680	90,811,604		269,666,149						
67	2016 4 Qtr	86,280,254	90,508,899	705,423,165	269,666,149	1,078,664,596	373,241,431	34.60%	\$18.83	\$12.31	\$11.21
68	2017 1 Qtr	86,827,476	92,904,742		273,742,293						
69	2017 2 Qtr	87,378,373	92,752,689		273,742,293						
70	2017 3 Qtr	87,932,970	92,448,581		273,742,293						
71	2017 4 Qtr	88,491,293	92,144,474	720,880,600	273,742,293	1,094,969,172	374,088,573	34.16%	\$18.83	\$12.40	\$11.32
72	2018 1 Qtr	89,053,367	94,528,968		277,481,819						
73	2018 2 Qtr	89,619,220	94,224,036		277,481,819						
74	2018 3 Qtr	90,188,877	93,919,104		277,481,819						
75	2018 4 Qtr	90,762,365	93,766,638	736,062,575	277,481,819	1,109,927,275	373,864,699	33.66%	\$18.83	\$12.49	\$11.71
76	2019 1 Qtr	91,339,710	96,233,513		281,308,041						
77	2019 2 Qtr	91,920,940	95,927,524		281,308,041						
78	2019 3 Qtr	92,506,082	95,621,535		281,308,041						
79	2019 4 Qtr	93,095,164	95,315,546	751,960,014	281,308,041	1,125,232,165	373,272,151	33.17%	\$18.83	\$12.58	\$11.85
80	2020 1 Qtr	93,688,211	97,824,190		281,308,041						
81	2020 2 Qtr	94,285,254	97,670,620		281,308,041						
82	2020 3 Qtr	94,866,316	97,363,460		281,308,041						
83	2020 4 Qtr	95,491,433	97,056,339	768,265,846	281,308,041	1,142,232,930	373,967,084	32.74%	\$18.83	\$12.67	\$11.97

Exhibit C

COUNSEL'S EXHIBIT NO. 1

GPRM Example Utilizing Aggregate Contribution

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